RETRO GAMER*

OLD!

COMMODORE • SEGA • NINTENDO • ATARI • SINCLAIR • ACORN • & MORE

RETRO* GAMER

I S S U E   E I G H T

RETRO GAMER* ISSUE EIGHT
£5.99 UK • $13.95 Aus • $27.70 NZ
08
9 771742 315004

>SYNTAX ERROR!

>MISSING COVERDISC?

<CONSULT NEWSAGENT>



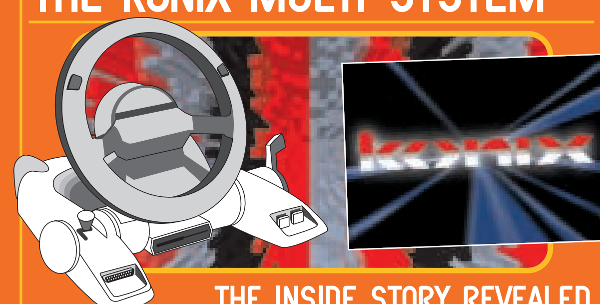
RETRO* GAMER

TREASURE TROVE



HARDCORE SHOOT-EM-UP HEROES

THE KONIX MULTI-SYSTEM



THE INSIDE STORY REVEALED

BUBBLE TROUBLE



THE ADVENTURES OF BUB & BOB

PLUS LOADS MORE:

GRAFTGOLD HISTORY

CLASSIC GAMING EXPO US REPORT

RETRO NEWS, REVIEWS & PREVIEWS

eMag

credits

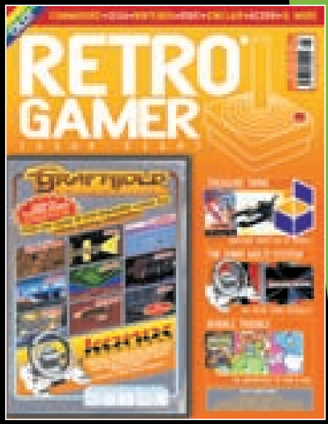
<EDITORIAL>
Editor =
Martyn Carroll
(martyn@livepublishing.co.uk)
Staff Writer =
Shaun Bebbington
(shaun@livepublishing.co.uk)
Art Editor =
Mat Mabe
Additonal Design =
Roy Birch + Da Beast
Craig Chubb + Dave Wilson
Sub Editors =
Rachel White + Katie Hallam
Contributors =
Mat Allen + Aaron Birch
Richard Burton + Jonti Davies
Adam Dawes + Paul Drury
Steve Turner + Craig Vaughan
& introducing Rodders Von Warde

<PUBLISHING & ADVERTISING>
Operations Manager =
Debbie Whitham
Group Sales & Marketing Manager =
Tony Allen
Advertising Sales =
Linda Henry
Accounts Manager =
Karen Battrick
Circulation Manager =
Steve Hobbs
Marketing Manager =
Iain "Chopper" Anderson
Editorial Director =
Wayne Williams
Publisher =
Robin Wilkinson

<SMALL PRINT>
Distributed by
Comag, Tavistock Road, West Drayton, Middlesex UB7 7QE, England. Tel: 01895 444055. Fax: 01895 433602

Live Publishing Int Ltd
Europa House
Adlington Park
Macclesfield, Cheshire
SK10 4NP, UK
ISSN: 1742-3155


```
>10 PRINT "hello"
>20 GOTO 10
>RUN
```



hello

Rather than my usual spiel, I'd like to devote this month's introduction to the many members of our ever-popular retro forums. Considering that the forums have only been active for around nine months, it's amazing to see how many members we now have. And the topics of conversation are always fascinating and often very funny. A special thank you to all the regular contributors – you know who you are. If you've yet to visit the retro forums, head over to www.retrogamer.net and get involved. There's always something interesting going on. I personally would like to contribute more often to the debates, but commitments to the magazine mean that this is not always possible. Still, I read through many of the threads, and I try to absorb as much of the magazine feedback as possible.

With that I'll leave you to enjoy the magazine and the coverdisc. Until next time.

MARTYN CARROLL
EDITOR

Subscription prices

UK: £71.88 (12 issues)
Europe: £77.00 (12 issues)
Rest or world: £83.00 (12 issues)

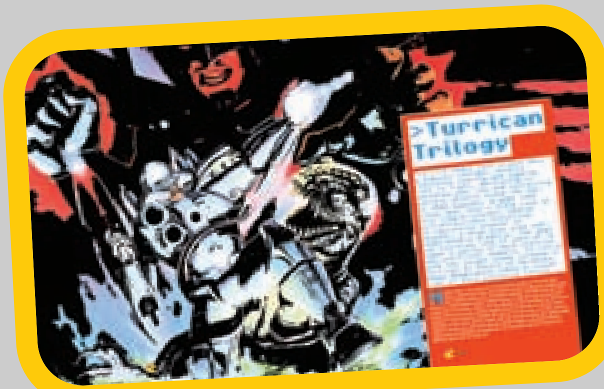
Retro Gamer, ISSN number 1742 3155, is published six weekly (eight times per year) by Live Publishing at 1320 Route 9, Champlain, N.Y. 12919 for US$105 per year. Periodicals postage paid at Champlain, NY. POSTMASTER: Send address changes to Retro Gamer c/o Express Mag, P.O. Box 2769, Plattsburgh, NY 12901-1329.

>insides 08


>Classic Gaming Expo US


>Konix: Best of British




>Turrican Trilogy


>The Mythical Mount Drash


GRAFTGOLD
Creative Software
>Golden Years









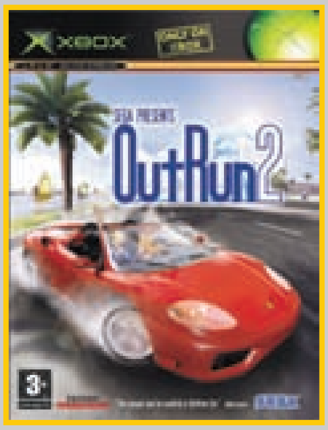
>Regulars

RETRO NEWS

NEWS-OLA

OutRun Extras

Sega's new racer comes loaded with retro trimmings







It's been revealed that the imminent Xbox version of OutRun will feature bonus tracks from two classic Sega racing games. And having played the game for ourselves we can confirm that the tracks in question are taken from Daytona USA 2 and Scud Race.

It was obvious that the game needed beefing up a little for the home market, but the number of extras provided has surprised even us. Best of all, many of the extras are linked to Sega's rich racing pedigree, obviously including the original OutRun itself. For example, we've learned that you can unlock the original versions of the three in-game tunes as alternatives to the updated mixes which play by default. There are also rumours that a complete version of the original game will be available for unlocking. This seems highly likely, especially as the game appeared in Shenmue 2 on the Xbox (albeit in a slightly modified form). Whether Sega goes one step further and provides playable versions of Turbo OutRun and OutRunners remains to be seem. We live in hope...

Anyway, you should be able to find out for yourselves around the same time as you read this, as OutRun is due out on Xbox at the beginning of October.

Suffering Flashbacks

Atari re-enters the hardware market

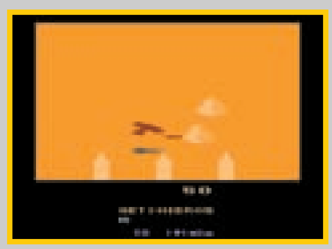




Atari is to return to its roots with a new hardware release. The Atari Flashback is a hybrid of the 2600 and 7800 consoles, and is modelled to resemble a smaller replica of the 7800. Like so many recent devices from the likes of Jakks Pacific and Radica, the console comes pre-loaded with games and plugs straight into the TV for immediate arcade action.

20 titles are included and they're a mix of 2600 games and 7800 games. The 2600 games include such classics as Adventure, Battlezone, Breakout, Millipede and Yar's Revenge, while the graphically superior 7800 games include Asteroids, Centipede and Desert Falcon. There's also an unreleased 2600 game entitled Saboteur included in the package.

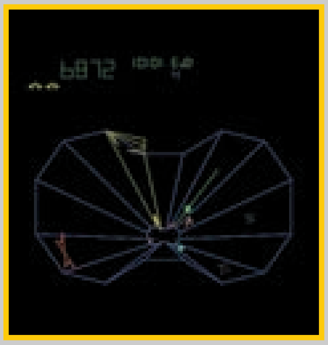
The console is due out in American in time for Christmas, priced at US$45. We expect a European release to follow sometime in early 2005.



Important happenings in the wonderful retro world

This month// OutRun 2 unlockables // New Atari hardware // Retro collections from Atari and Tecmo // Lemmings on mobiles // GBA Final Fantasy // Gamestars Live // Retro round-up...





Next-Gen Retro Packs

Atari and Tecmo get in on the act

Both Atari and Tecmo have announced retro compilations for PlayStation 2 and Xbox. Entitled Atari Anthology and Tecmo Hit Parade, the two collections will be packed with classic games and will retail at a bargain price.

At present very little is know about the Tecmo collection, except that it is due out in Japan on PlayStation 2 at the end of November. As for games, you can be sure to expect Bombjack, Solomon's Key, Rygar and Dragon Ninja. Much more is known about Atari Anthology. Due out in the



US this November on PlayStation 2 and Xbox, the package will feature an impressive 85 titles. There will be 18 original Atari arcade games, including Asteroids, Missile Command and Tempest, plus 62 Atari 2600 titles and five special bonus games. Everything will be accessible through a 3D interface and the collection will cost our American friends a mere US$20. That's less than a quarter a game!

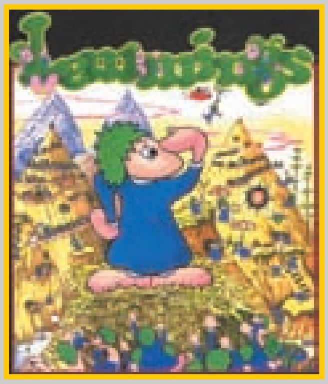
Such was the popularity of Midway's Arcade Treasures, both titles are sure to receive a European release. We'll hopefully have more news on this within the next few months.

Lemmings on the move

Classic puzzle game comes to wireless

Wireless entertainment publisher iFone have done a deal with Psygnosis to bring Lemmings to mobile phones and other portable devices. The game, which was first released on the Amiga in 1990, was instantly heralded as a classic, and has since been ported to a diverse range of formats including the Commodore 64, GameBoy and PlayStation.

iFone's Morgan O'Rahilly stated: "The Lemmings franchise is an excellent fit for the wireless gaming environment – it is incredibly addictive and fits the small form factor perfectly." Those who've played the miniscule GameBoy port may be inclined to disagree with this statement, but having seen the game in action, we can report that it's perfectly



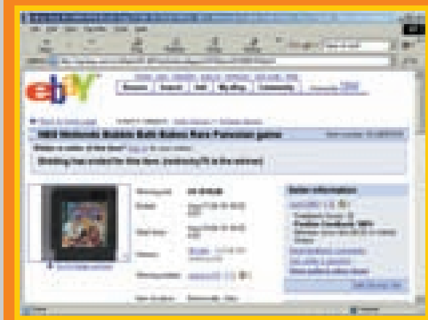
playable. The size of each lemming has been increased slightly, so they can be easily selected and commanded.

Lemmings is due for release in time for this Christmas. For more information visit **www.ifone.com**.

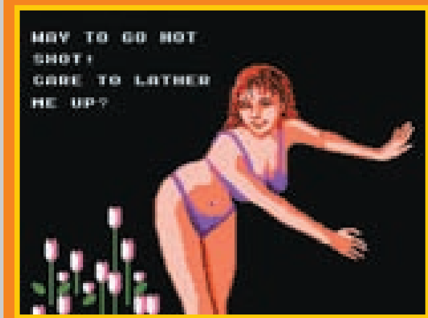
RETRO AUCTION WATCH

We've got a right old assortment for your auctioneering pleasure this month

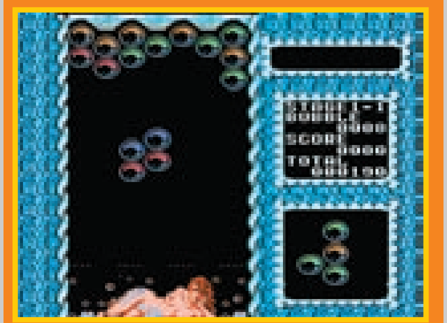
It's only right and proper that we should kick off proceedings with busty babes in hot, foamy bubble-bath action. Although it sounds like every red-blooded males' retro-gaming Christmases have come at once, we're afraid the reality is something else.



The game in question is Bubble Bath Babes for the NES, a little-known title released unofficially by Panesian in 1991. It's basically a Bust-A-Move/Puzzle Bobble variant with a hint of Tetris thrown in. Coloured bubbles float to the top of the screen where you need to connect four of

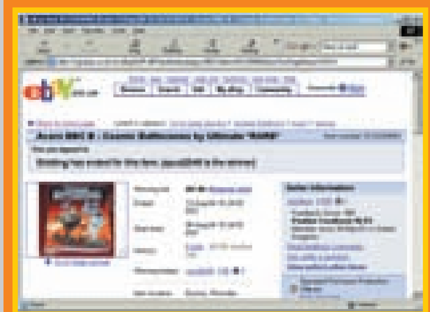


the same to pop them. Sounds like perfectly innocent fun, except that your progress is rewarded with images of rather unappealing ladies (albeit with impressively large breasts) losing their clothes. What's more, they utter classic lines such as: "Way to go hotshot! Care to lather me up?" Who could resist this cart-based, Carry On-style smut? Well, not NES collectors, that's for certain, as a copy recently changed hands on the US eBay site for a cool US$510. We really can't see Sam Fox's Strip Poker doing the same, can you?



Let's leave the debauchery behind and get back to the sleaze-free world of Ultimate and its superbly expensive games. Possibly their two rarest titles popped up on eBay UK in August, both setting noteworthy benchmarks for future pricing. Bubbler for the Spectrum is generally regarded as the most expensive Spectrum cassette game to obtain. Whenever it appears on an auction site it tends to do extremely well and this month was no exception. A final bid of £72.11 was enough to capture the latest copy. However, it appears Cosmic Battlezones for the BBC Micro has superceded Bubbler as the must-have Ultimate title. The compilation which features Alien 8, Jet Pac and Lunar Jetman managed to make a stupendous £87. The fact that Lunar Jetman was never released as a standalone title on the BBC Micro certainly contributes to its collectability.

Finally, everyone knows and loves the creations of Matthew Smith, and after his recent attendance at the Classic Gaming Expo UK, a new wave of fandom and anticipation surrounds the Miner Willy creator. A copy of his Bug Byte classic Manic Miner, signed by the great man himself at the Expo, surfaced on eBay and went for £22.53. Absolute bargain.



First Fantasy

GBA takes you back to the beginning



Despite the title, there's nothing remotely final about this long-running RPG series. If Squaresoft is not adding sequels at one end (part XI is out now and XII is just around the corner), it's re-releasing older games at the other. This December will witness the release of Final Fantasy I & II for the GameBoy Advance. Sub-titled Dawn of Souls, it brings together the first two instalments of the Final Fantasy saga on a single cartridge. And they're not just straight ports of the NES originals either. Besides improved sound and graphics, Final Fantasy I will feature a new dungeon called Soul of Chaos (featuring bosses from parts IV, V and VI), while Final Fantasy II will include a new side-quest entitled Soul of Rebirth.

This is great news for fans of the series, but we just wonder when Squaresoft will get around to releasing the completely overlooked Final Fantasy III. To the best of our knowledge, this is the only Final Fantasy game which hasn't been re-released on a modern console.



RETRO ROUND-UP

If it's new for old, you'll find it here...

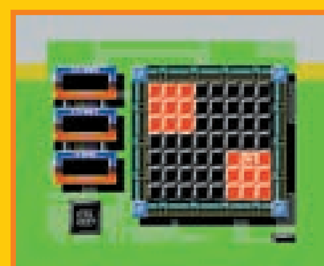
Game overload

According to Simon Ullyatt, Cronosoft's founder and chief, "Things have been going mega-divvy as new games seem to be coming at me left, right and centre." And when you look at the current list of announcements, you'll see what he means.

As we reported last issue, Amstrad CPC owners will be seeing new software from the label in the guise of interactive fiction – text adventures to you and I – from the skilled hand of Jason Davis. Simon has also announced though that you'll soon see software for a more diverse range of machines, including Commodore's VIC-20, C16 and Plus/4, and Atari's 8-bit range. The most notable game is Reaxion, already available for the C64, which is currently being ported to the ZX Spectrum, Commodore Plus/4 and Atari 800.

Commodore 16 and VIC-20 fans will soon be able to enjoy the game Lunar Blitz, based on the classic City Bomber concept and brought up to date by the skilled hand of Jason Kelk, who is also busy putting the finishing touches to CyberWing.

Those of you who frequent our forum may also be aware



that Matthew Smith is "not averse" to writing new software for the ZX Spectrum to be released under the Cronosoft label. This would be great news, and with the current level of interest would obviously sell well enough to justify the release. Watch this space...



Future Shock

Retro gaming at Gamestars Live

Live Publishing was in attendance at the recent Gamestars Live show, countering the onslaught of gaudy new games with our retro arcade machines. But we weren't the only ones looking back instead of looking forward. Radica was showing off its excellent Megadrive TV console to interested parties of all ages, while the Joystick Junkies-sponsored 'retro lounge' was packed with many classic machines, including titles such as Pac-man, Space Invaders, Tron and Gorf. And just around the corner, Highbury Paragon, publishers of Games TM, also had arcades on its stand, including a superb Gauntlet II cabinet.

All in all it was a great show, with our personal highlight being the presence of Halo's Master Chief. He even stopped by to sample Space Invaders (see picture), proving that spacemen from the future love retro gaming too.





Mini-game competition

By the time you read this, the mini-game coding competition 2004 will have drawn to a close, with the final entries being submitted by Sunday 31st August. The idea behind the event is for programmers to create a playable mini-game on any format they choose, but the available memory is severely limited. There are two categories – games no bigger than 4Kb and, amazingly, games no bigger than 1Kb! This represents a significant challenge as it is not only hardware limitations that need to be considered.

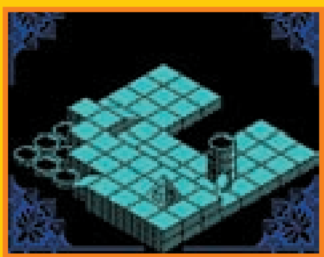
Even working in such parameters, some excellent games are entered every year, and 2004 has been no exception. Yet again a wide range of formats are represented, from the ZX81 through to the NES. Head over to the homepage at **www.ffd2.com/minigame** where you'll be able to download the games. The winner for each category should be announced very soon.



Ragnar returns

While digging through his old collection of ZX tapes, Ex-Spectrum programmer Carl Norlund has uncovered one of his unfinished pieces of work, a peudo-3D game entitled Ragnar. Carl is now back working on the game, and plans to have it finished by the end of the year. Furthermore, he has promised us a playable demo at the earliest opportunity.

Work has progressed quickly considering the primitive state of the code. The title screen and sprite handling routines have now been completed, and although Carl is busy at the moment, he aims to distribute it himself on tape through his website (**www.demesta.com/ragnar**). Prices are to be announced shortly.



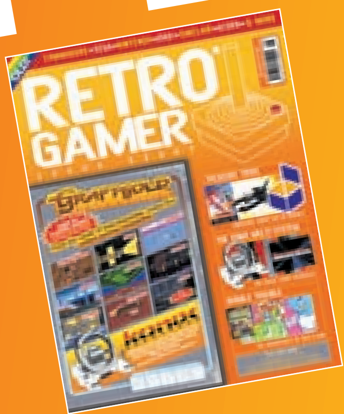


Tunnel vision

Howard Kistler is working on a PC remake of Tunnels of Doom, an original game for the Texas TI99/4a available circa 1982. This game is a well-known title amongst fans of the TI, and along with Parsec and TI Invaders, is rightly considered as a classic for the machine. It's one of those early first-person games, and Howard hopes that the remake, named Tunnels of Doom Reboot, will be able to retain the magic of the original game. Take a look at **www.dreamcodex.com** for further information on this game and his other planned products.

The RETRO FORUM

Don't be a stranger now...>



CONTACT US

email:
feedback@retrogamer.net

snailmail:
Retro Gamer
Live Publishing
Europa House
Adlington Park
Macclesfield
SK10 4NP

Pro-hunt activist

I just read the 'ban hunting' letter in Retro Gamer issue 7, and to a point I can agree with Alan Jacobs that if all the locations of classic games were to be published it would just make the dealers' lives easier, and they would no longer be available to the general public. What he seems to fail to see though, is that if a game is no longer earning an operator money they will get rid of it, unless it happens to be one of their favourite games. Parts are hard to come by for many older games so keeping them running is an operator's nightmare. If a collector or dealer buys the game, at least it is saved from destruction and will be restored and cherished.

By not disclosing the location of this amusement arcade he will more than likely doom all of these games to the skip as the operator in question is highly unlikely to contact him or even want to deal with him. This is particularly distressing for me as I am currently searching for a Space Harrier simulator to restore, and time and again I get a lead on a machine only to find I'm too late and the machine has been scrapped. Unfortunately this is the fate of most old simulator games – OutRun, Afterburner, Rad Mobile, Galaxy Force and so on. Most dealers have no interest in them and the majority of collectors do not have room for them, so they are nearly always scrapped. Hence they are now incredibly rare. Most normal upright games are saved though as there is a big market for them amongst collectors.

Anyway it is pleasing to know that for a few more weeks there is at least another Space Harrier simulator available for the general public to play.

Nick Hutt, via email

RG: It's a difficult one, with readers supporting both sides of the argument. However, we believe no one wants to see machines scrapped. As you say, better with a dealer than six feet under. We're still in two minds whether to continue the Arcade Hunt feature, so keep sending us your thoughts on the matter.

Kids in America

I have recently turned 17 and love reading any information about videogames, especially anything before the N64 and before I was born. I have a great respect for retro games and how state of the art they were at the time. I enjoy your magazine so much and I love the long letters page. I would like to see a timeline of the major events in retro gaming all the way through the 16- bit console wars, because I would like to put all the retro gaming info I have in my head and associate it with a certain time period. Also I'd love to see a page devoted to homebrew games and retro imports.



Logan Greiner, USA, via email

RG: It's great to see that the magazine is now establishing itself internationally, and appealing across the generations. Your suggestions have been noted, and we endeavour to review as many new homebrew games and

remakes as we can. We're also considering a more in-depth feature on homebrew games.

Retro lovin'

I live in the USA, so I'm always a little late to this party since my Barnes & Noble store seems to get these magazines a month or two late. It seems to be getting better lately though, since issue 5 just arrived there and I snatched it up.

My main point is to tell you that I've never in my 44 years ever been so excited about a new magazine! Compared to my 'regular' PC gaming mags, RG is expensive (even subscribing), and yet I'm getting more value for the money than I've ever had before. To be honest, I've always secretly harboured a desire to start a retro-gaming magazine myself, since no one else seemed to be doing it. However I did not have enough knowledge to do so.

When I stumbled upon issue 2 (damn, I missed issue 1!) at the news-stand, my heart skipped a beat. Someone had finally done it and my excitement knew no bounds. I informed a friend, and he went and grabbed the only other copy (I think our B&N only gets three copies a month). I'd subscribe to save me the hassle of constantly checking at the store, but I worry about damage to the magazine and/or coverdisc that overseas shipping might result in as sometimes the coverdisc case is damaged.

I owned none of those systems you tend to write about in RG (except for the Atari 2600 and Commodore 128 – both of which I still have and cherish). And yet I still devour all the articles on every system you and your team write about, simply because I'm fascinated with that computing era, and it's intriguing to read about what people were doing with those machines.

I only read two magazines I get cover-to-cover, and yours is one of them. The fact that there is so much content that it takes me a full week to read it through completely is a testament to quality. Please don't change a thing regarding the amount of content. It's perfect.

With regard to a question you posed in issue 5: yes, absolutely more music. The music was an integral part of the experience. I love the coverdisc idea. My one suggestion would be to use larger screen shots of each game. Things have improved in this regard, but there are still some really tiny ones, and I love to study the screenshots to get a better idea of the game, artistic design and use of colour.

I am so glad your venture is taking off so nicely. I treasure each issue, and hope and pray my local B&N continues to carry it. You folks are doing a wonderful job of printing exactly what I want to read. May the golden age of gaming continue to have its roots buried deeply in our hearts.

Mark Lahren, North Dakota, USA, via email

RG: Thanks for your kind words Mark. Glad you like the magazine. Even though the content to date has been largely Euro-centric, we'll looking to cover consoles more in the coming months, so you can expect to read about machines you're more familiar with. Oh, and we'd just like to reassure sceptical readers that we don't make up these letters of praise!

Drip drip

I am writing in response to Andy Pryer's email. At last, another person who knows and loves the Amiga PD classic Drip. This game is my all-time favourite.

I originally got it on a coverdisc from an old issue of CU Amiga and it became a firm favourite with my friends and I. Using the WinUAE emulator featured on your coverdisc, and after much searching the Net, I managed to find a copy of Drip as my original Amiga disc is dead.

It's available on an Assassins PD 003 disc along with a Breakout clone. I've been playing



* Star letter *

Our well-dressed friends at Joystick Junkies (**www.joystickjunkies.com**) produce official clothing based on loads of classic videogames, and the winner can select any T-Shirt from the range. Well done to Derek, who is this month's winner.

Gaming Nirvana

I'd like to add my thoughts on the 'Final Fantasy VII being the best game ever' discussion. Although there have been many great games produced over the past 30 years, such as Pac-man, Super Mario 3 and Super Metroid, FFVII was for many gamers the breakthrough into the modern gaming era. I equate FFVII's release with Nirvana's Smells Like Teen Spirit, because both did two things – they got people excited and revolutionised their respective industries. In fact, I had waffled for years after the release of both N64 and PlayStation as to which system to buy. Yet, in spite of never having played an RPG prior, FFVII impressed me so much that I decided to enter the modern era and buy a PlayStation, just as Nirvana's Smells Like Teen Spirit had revived my hope in rock 'n' roll and led me to sell my MC Hammer albums.

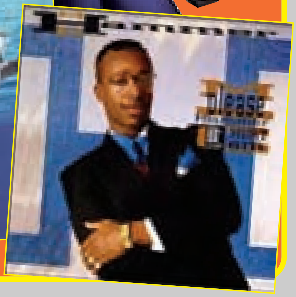
Derek Rooney, Maryland, USA, via email

PS Is the TurboGrafx popular on your side of the Atlantic?

RG: Thanks for chipping into the debate, which will undoubtedly be a long-running one. As for our readers, many agree that Final Fantasy VII is a great game, but you'll have to wait and see which game was voted for as the best ever. It's a shame that you sold your MC Hammer albums as Martyn would have paid a small fortune for them. Regarding the TurboGrafx, well it has more of a cult following in Europe as only the handheld variant was released over here.





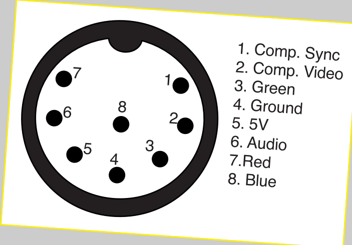


it every night for the last week or so. It was bizarre to pick up your latest issue of my doormat and see it mentioned. I recommend everyone out there who wants to play something so simple and addictive to get out there and grab it.
Ben, London, via email

RG: Drip was also one of Shaun's favourite PD games on Amiga. Thanks for the advice, as he is chuffed to bits to be able to download and play it once more.

Megadrive pin-outs

In the letters section of your last issue you had a request from a guy asking about the pin-out from the DIN socket on the back of a Japanese Megadrive. I'm pretty certain that all Megadrives have the same pin-out, and a diagram is attached (looking into the end of the plug, reverse it if looking into the socket). I found an old audio DIN to phono cable and discovered that one of the sockets gave me composite video, and was happy with that. I once tried



to make a connector cable to hook a 32X I bought without cables up to my MD, and the experience put me off soldering DINs and Mini-DINS for life.

As far as power is concerned, I'm pretty sure the adaptor is the same as a UK Megadrive. Although owning Japanese kit is worthwhile just for the cool factor, it's easy to convert a UK Megadrive to play Japanese games. Just take a pair of pliers to the cartridge socket and break off the two tabs that stop you inserting the cartridge. For the rare games that still won't work, you can do a country switch mod as described here: **http://users.skynet.be/DuNe/Console/md1/md1.html**.

Having done a similar but more complicated mod to a Saturn, I think I'm qualified to say that even very amateur solderers can do this with a bit of patience and persistence!
Rich, via email

Commodore scene

I want to say that I especially liked your feature on Olympic event games in issue 6. I was surprised though that you did not mention my two favourite event games: Summer Events and Winter Events by Udo Gertz on the Commodore 16 and Plus/4. Graphically I found these better than the Epyx games and a lot more fun to play too!

And while I'm on the subject of the Commodore 16 and Plus/4 – will you be doing a detailed feature on these computers in the near future? These machines are usually overshadowed by the Commodore 64 and later Commodore machines so not many people truly realise how great these machines were. Also, a quick search on the Internet will show that the scene is still alive and active (and big too!). Anyway, keep up the good work.
Stuart Wilson, Evesham, via email

RG: I reckon that you'll be happy to see the pending C16 release from Cronosoft, won't you? We are well aware of the C16 and Plus/4 scene, and plan to cover these often overlooked machines in the very near future.



RG: Thanks for that Rich. May we just say that neither Rich nor anyone at Retro Gamer can be held responsible if you electrocute yourself of set fire to the house while modding consoles. You have been warned!

Speccy sound

I won't go on about how good your magazine is because it speaks for itself. I've bought every copy so far and will do so until they stop being good (simple really).



I just had to write to you because, firstly, I wanted to comment on an article a couple of issues back that praised the Commodore 64's music capabilities. Yes, fair enough, you could achieve a great deal from that machine, but you didn't mention the amazing music accomplished by the Sinclair ZX Spectrum. The soundtrack for Chronos was incredible! You have to admit that track sounded far more complicated than the Spectrum seemed capable of.

Anyway, the other reason for my email is this: I have a large collection of games for many different consoles and I regularly dig them out and play on them, but I do get tired of having to plug in a different console every time I want to play a game. I've decided that emulation on my PC is the best solution, but I realised that I have many games on CD like the Saturn and Mega-CD ones and wondered if there was a emulator that would allow me to use my original games on my PC? Please let me know because it's almost impossible to find the ROMs for these games.
Rob, Rochester, Kent, via email

RG: We take your point about sound on the Spectrum. Perhaps if it was the Speccy that had a similar chip to the SID from it's birth then maybe it would get more credit on the audio front. We are also planning a feature on the AY chip found in the machine from the 128+ onwards for a future issue. As for your emulation question, the Gens emulator (http://gens.consolemul.com) allows you to play Mega-CDs on your PC. Just place the disc in your PC CD drive, configure Gens and it will play. The Saturn, however, is much more difficult to emulate. There are several emulators available, but overall compatibility with commercial games is currently very poor.

Hang-On a minute

I loved the article on Hang-On and Super Hang-On in issue 6, but I noticed that one version of Hang-On was missing – Hang-On Junior! It was released in 1985 at around the same time as Hang-On, but runs on a lower cost (and lower power) chipset. It looks remarkably similar to the Master System version, although I don't know if it plays like the MS version. I've included some screen grabs for your viewing pleasure!



Also, will you be doing a feature on ST/Amiga demo crews like The Carebears (TCB) or Persistance Of Vision (POV). I remember some demos in particular: Punish Your Machine on the ST, Life's a Bitch on the ST, RSI Mega Demo on the Amiga, Cool's Acid Burn 2 demo on the ST... Anyway keep up the good work!
Paul Sammons, via email

RG: Well stone us. We admit that we're unfamiliar with Hang-On Junior, so thanks for the heads up on that one. Demos is definitely something we're interested in covering. Perhaps some of those anonymous coders involved in the scene would like to contact us...

eMag

RETRO REVIEWS

From old games on new platforms to new games on old platforms. As long as it's retro, you'll find it in our regular reviews section

Do you disagree with our Hall of Fame or Hall of Shame reviews? Or can you think of any other really great or damned awful games that we should take a look at? Email reviews@retrogamer.net with your suggestions and we'll take it from there...

Gradius V

Developer:	Treasure
Price:	£29.99
Format:	PlayStation 2

Konami currently has a number of high-profile releases in the pipeline, but none can match the anticipation surrounding its latest game in the Gradius series. And for me, that includes both Metal Gear Solid 3 and Silent Hill 4. Much of this fevered appeal is down to Treasure's involvement. After the disappointing Gradius IV it was obvious that the series needed a little nurturing. And who better to come onboard than shoot-em-up superheroes Treasure. So we've got Konami and Treasure, back together again. Talk about a dream team.

There were initial concerns that Treasure, always eager to innovate, would push the envelope further than ever before. Thankfully, the game is essentially the same, with the familiar power-up system present and correct. In fact it's almost restrained, with a mere four weapons configurations for your ship. Compare that to the mind-boggling array of ships and weapon setups featured in R-Type Final.

So this is classic Gradius. The first wave of enemy ships even mimic the same attack patterns as in the original game. Destroy them all and you'll receive a power-up. Stockpile these power-ups and then select your weapon of choice. You know the score as it's the same game you've played for the last 20 years. But while it may play the same, it certainly doesn't look the same. Gradius V is easily the best-looking 2D shoot-em-up ever created. From the screen-filling bosses to the dizzying back-grounds, every smooth-flowing frame is exquisitely detailed. The term eye-candy is horribly overused these days, but in this case it's perfectly appropriate.

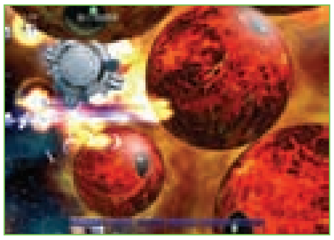
Gradius V therefore succeeds where similar updates have failed. It harnesses the raw power of PlayStation but remains true to the series' rich lineage. And for that we should rejoice.

Martyn Carroll

Graphics 94%
Searing balls of glowing energy permeate from the screen. The graphics are that good.

Sound 86%
Booming explosions infuse the pleasingly incidental soundtrack.

Playability 93%
Eight stages of concentrated shoot-em-up action. Includes simultaneous two-player option.



Addictiveness 93%
Die, retry. Die, retry. Die, retry. Ad infinitum.

Overall 92%
A simply glorious Gradius update that guarantees hours of finger-twitching fun.





Turrican 3

Developer: Aeg/Smash Designs
Price: Free download
Format: Commodore 64/128

Rather than a port of the official Turrican 3 released over a decade ago, Turrican 3: The Return of Darkness picks up the story some 12 years after the scenes depicted in Turrican 2. America has sent its flagship shuttle Avalon 3 into deep space, and after losing contact with mission control the worst is suspected – has the dreaded Machine returned to wage war on mankind again? They call the only man who can sort this matter out, the one who infiltrated the Machine's layer to face and destroy him in battle before. Step forth our all-American hero Mayor Bren McGuire.

Your task is to guide him through five hostile worlds, boosting your weapons on the way in order to defend yourself against an army of enemies. Your aids come in the form of a single shot, three- and five-way laser, energy ball and mega-laser which can be powered up. The gyroscope is included and can be used as often as you like, and the energy walls and lightening beam round off your arsenal nicely.

Turrican 3 is certainly a commendable effort. The graphics ooze class, especially the bosses you encounter, and the music is absolutely fantastic throughout. There are problems though. The gameplay is fine, but it suffers from many small bugs, which are especially prevalent in the first two worlds. Some of the bugs can hinder your progression by preventing you from completing the level. This is a dampener on what would otherwise be an excellent game.

But considering that this game



is free, I guess beggars can't be choosers. On balance, it's good enough to live up to the legacy of the first two epics.
Shaun Bebbington

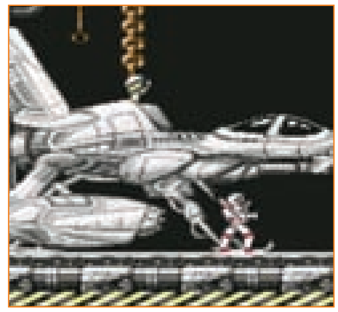
Graphics 89%
Slick presentation and huge, fast-moving bosses are simply brilliant, but occasionally let down by bugs in the game engine.

Sound 93%
The music accompanying this game is varied and superb, featuring classic SID tracks influenced by the great masters.

Playability 74%
An instantly recognisable concept to Turrican fans. Lots to see and shoot.

Addictiveness 75%
With huge worlds to explore and bosses to destroy, there's plenty here to keep you entertained.

Overall 83%
Potentially a great game let down by the frustration of the first two worlds.



Cyber Wing

Publisher: Cronosoft
Price: £1.99 tape or disk
Format: Commodore 64/128

Unexpectedly, 2004 has so far been an excellent year for new C64 games. The first and most notable release was Hockey Mania back in January. From there, news surfaced about the pending release of Reaxion along with many others. Pinball Dreams, the Worms-inspired Grubz, and Metal Dust are three of nearly a dozen projects at various stages of development. C64 gamers haven't had it this good since 1993, by my reckoning anyway.

New from Cronosoft is Cyber Wing, a vertically scrolling shoot-em-up set in the future (naturally). Aliens have once again been up to no good, and have ransacked our outer colonies, leaving a trail of destruction in their wake. All communication lines with Earth have been cut and there is no way of sending a warning signal in time. Your mission is to take remote control of a Cyberwing MK3 mid-range fighter and navigate it through the five colonies to get a much-needed warning message to Earth. Your job isn't that easy though, as the aliens have deployed drone-fighters of their own.

You start your task with a triumphant fanfare, before being met by the waves of drones out to thwart your efforts. Luckily, these attack in set patterns, and you are given three ships to complete your quest. The Cyberwing is armed with standard-issue plasma cannons and is additionally fitted with five 'Mattersplatter' bombs, which will potentially destroy a whole wave of invaders.

Vertically-scrolling shoot-em-ups are fairly common due to the great number of Shoot-em-up Construction Kit creations released. However, Cyber Wing is beyond anything you could create with SEUCK, using a unique engine and enemy waves rather than pre-set events. It reminds me of War Hawk and is a great blast worthy of its price-tag.
Shaun Bebbington

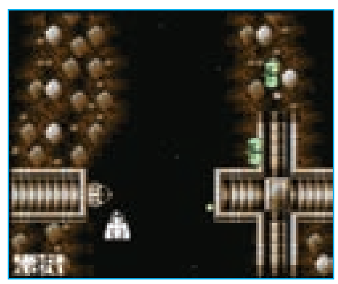
Graphics 80%
Nicely presented with smooth scrolling and basic, but perfectly apt, enemy sprites.

Sound 90%
Bouncy synth-style title track and either in-game music or sound effects during play.

Playability 83%
A simple concept requiring a keen eye and sharp reactions.

Addictiveness 83%
Unlike many other similar shoot-em-ups, this one offers enough originality to keep you coming back.

Overall 84%
Another quality release from Cronosoft and a fine addition to your C64 collection.



Battle Chess



Developer:	Interplay
Price:	£14.99 disk only
Format:	Commodore 64/128

Traditional games such as Chess, Back Gammon, Yatzee and many others have found their way to home computers throughout the years, and Chess in particular has seen many revisions, from the humble yet impressive 1Kb Chess for the ZX81, to professional editions such as Colossus Chess which appeared across many formats.

Chess is something that people either like to play or not, and is considered a serious mental sport at some levels. What Battle Chess brought to the game was a little bit of fun as well. Viewed in the default 3D mode, the pieces come to life and move as you would expect, featuring humorous animations. The swagger of the Queen as she saunters around the board is one of my favourites, as well as the morphing Rook.

As the titles suggests, a battle ensues when you make a move on an opponent. There's a unique animation for each confrontation, and I must admit I spent my first few games going out of my way to view all the different attack animations. If you're not interested in these comic touches, you can always switch to a standard top-down game of Chess without the frills.

Graphically, despite being low-resolution, Battle Chess is more than adequate, with well-drawn sprites. Overall, the game is well



presented and packed with all the options you'd expect – seven selectable skill levels, one or two players, saveable games etc. So, novice or not, Battle Chess is simply great fun.

Shaun Bebbington

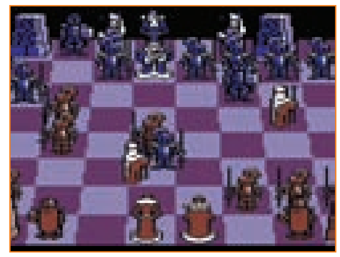
Graphics 88%
Low resolution, but colourful, well defined, smooth and superbly animated.

Sound 55%
Reasonable spot sound effects accompany the play. Nothing special.

Playability 95%
Chess players at all levels will really enjoy this game. The comic touches may even attract youngsters.

Addictiveness 94%
A solid challenge for all but the most professional Chess players. The skill levels will keep you coming back.

Overall 84%
A refreshing take on the traditional game of Chess. Cerebral fun.



Rise of the Robots



Developer:	Absolute Entertainment
Original price:	£19.99
Machine:	Amiga

There have been many titanic failures in the gaming world – failures that have led to the developers of a title to be laughed into gaming obscurity – but even the floppage of Daikatana or the desert entombment of E.T. can't hold a candle to the tripe that was Rise of the Robots.

Riding on an enormous wave of advertising and mighty promises to its future 'fans', the game was billed as the next big thing – a game to end all games. The developer even roped in axe-master Brain May to perform the soundtrack. But, after being overloaded with all manner of impressive graphical renders and tantalising footage, the game eventually found its way onto the shelves, where things went horribly wrong.

ROTR was bad – really bad. Sure, the graphics looked fine when static, but as soon as they started moving we witnessed animation that made South Park look like a Disney epic. Add to this a paltry one-button attack system, the inability to jump over your opponents and the choice of a single character in one-player mode and you were left with one of the worst gaming experiences ever. ROTR didn't offer any real challenge, and even on the hardest difficulty level the game was consistently predictable, and most enemies could be defeated easily. The usually enjoyable two-player mode was also poor, with the available characters having limited move sets.

Perhaps the game's only saving grace was the impressive renders when robots entered the arenas, but aside from this tiny scrap of light, ROTR was pure, unadulterated filth. If you've never played it, it may be worth a shot – but just for a laugh.

Aaron Birch

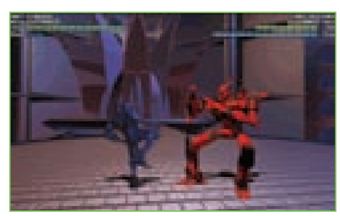
Graphics 10%
For screenshots you could get no better, but when the animation kicked in, it was hard to take seriously.

Sound 25%
Hardly any sound complimented the game proper, and the soundtrack was doomed despite guitar god Brian May's best efforts.

Playability 8%
If you could get over the pathetically limited combat system and the sluggish controls, the non-existent challenge would finish you off.

Addictiveness 5%
Playing through the game once was bad enough. There's no way you'd want to relive the experience.

Overall 12%
A complete dud. Should have been put out of its misery long before it reached the shop shelves.



>Classic Gaming Expo US

The original US Classic Gaming Expo was held this year in San José on the 21st and 22nd of August. Now that it has wrapped up and everyone has gone home, there's plenty to look back on and remember. For those of you who couldn't make the trip, regular attendee Mat Allen can fill you in on what you missed, and perhaps encourage more people out there to take a trip, have a holiday and get to meet some of the many other fans in the retro scene next year



Organiser Joe Santulli takes a break from the busy show floor



Howard Scott Warshaw was back, selling and signing copies of his Atari DVD

California dreaming

The switch to San José away from Vegas allowed a certain freedom and greater expansion of the show than had previously been possible. "We had pretty much maxed-out Vegas as far as I was concerned," said Joe Santulli, one of the show's organisers. "Attendance for 2003 was on a similar level to 2002, and it was felt more could be done if we had more space." Hence a change to the San José Convention Centre situated only a few miles from the airport and, despite the roadworks at the time, fairly easy to locate and drive to.

The effect on hosting the show in a much bigger location was immediately apparent upon arrival – the main-stand area was larger overall than the entire space taken up by everything last year, and now there was the room to have separate areas away for both the museum and the alumni speeches. It wasn't just the extra floorspace that appealed as Joe cheekily commented: "In Vegas, there is so much to do exterior to the convention that sometimes people would get distracted and accidentally disappear at crucial moments. With the move came less outside influences and hence we were able to keep a tighter reign on proceedings."

Certainly over the course of the weekend, every talk event that was scheduled hit their mark on time and none of them ran over. Which was very impressive for those of us who were scheduling when to attend other activities and making sure none of them overlapped. With the move though, came greater expenditure: "Overall, costs were a lot higher, partly due to Vegas' low prices to begin with, and partly due to the mandatory use of union labour on site. Even something as simple as the Alumni Dinner (a meal held the previous night to the show for all the guests) cost three times as much as previous," Joe noted.

First stop upon entering was the Digital Press booth itself. Here the guys and gals were on hand to dish out nametags for board members and sell the new Advance Guide, launched at the show. This new guide covers all machines large, small, and handheld from the 16-bit era onwards until the most recent machines of N64, Saturn and PlayStation. On display were the prototypes of Penn and Teller for Sega CD, and various proto Atari 2600 games, such as Wings, which were available to play. Available on both the Digital Press stand and the official CGE Services booth next door was a wide variety of games to buy, including leftovers of the last two years' official releases and bargains galore. Stock was rotated throughout the day so it was always worth popping back to check for new games.

Messiah Entertainment was showing off its latest creation in the world of hardware. After the success Nintendo had with the Wavebird for the GameCube, Messiah has created a similar remote controller for both SNES and NES. Due to some production problems, none were available for purchase at the show, but pre-orders are being taken from its website, and a few early sets were available to win via a raffle held. Overall the controllers are good quality and responsive, even if the pad part (a thumb holding circle instead as Nintendo owns a patent for its D-pad design) was a little twitchy. Tighten that part up a bit, and I think it will have a winning product on its hands.

Packrat Video Games had a wide variety of homebrews and hacks available to buy on professional cartridges for a



Packrat had a large number of homebrew games and hacks for sale



Keith Robinson checks to see who's buying at the Intellivision stand

reasonable price each. Most were for the Atari 2600, but it was also debuting a new Lunar Lander-type game for the Odyssey 2 of all machines. The usual stall suspects such as Atari2600.com, NWCGE and Good Deal Games were present, along with newcomers 4Jays. If you've ever ordered from these people online, now was a chance to meet the people behind the sites in person.

Despite the wide variety of stands and games on sale, including many rarities in good condition, the main complaint was that it was very hard for buyers to find good deals or prices. Many sellers were charging the same price as is normal on their websites, which often can be in excess of eBay levels. Even the traditional end-of-show discounts were thin on the ground. For once, this wasn't a good show for those looking to fill holes in their collection, and hopefully next year might see a return to the levels we've been used to before.



Computer Space. And it was fully functional and playable

Floor fillers

It was, however, a very good show for those coming to play and be entertained. Midway and Konami set up adjacent demonstration stands and they complimented each other well. Konami was mainly handling promotion and answering questions, but it also had the new Treasure programmed Gradius V for unlimited play on a very capable, clear and large monitor. Any fan of the Gradius series must get this when they are able to, as this is a sure-fire hit with Treasure's genius in making addictive shooters once again exploited.

Midway had six individual large television setups all running the soon-to-be-released Arcade Treasures 2 compilation. Everything was open and available to play, meaning an enjoyable hour was spent playing through Cyberball, Total Carnage and Xybots before having to scoot off to another alumni speech. A few tweaks were still needed to parts of the emulation (Wizard of Wor played far too fast) but I'm sure Midway will fix that before the release in October.

Across the entire sidewall were copious consoles and computers running a variety of games. With the added chairs in front, it meant you could take a break from the show, chill out and have a go on something you may well have never seen before. Part of the row was dedicated to the Twin Galaxies group, who were running competitions and challenges throughout the weekend. I'm not sure if any world records were broken, but a couple of world record holders, such as Billy Mitchell, could be found wandering the floor from time to time. There were also a group of MAME cabs in action, meaning theoretically you could have a dabble at almost any game ever released.

Which leads into the dedicated cabs that were

Some of the arcades on show. Playing Yie Ar Kung Fu can make you shortsighted



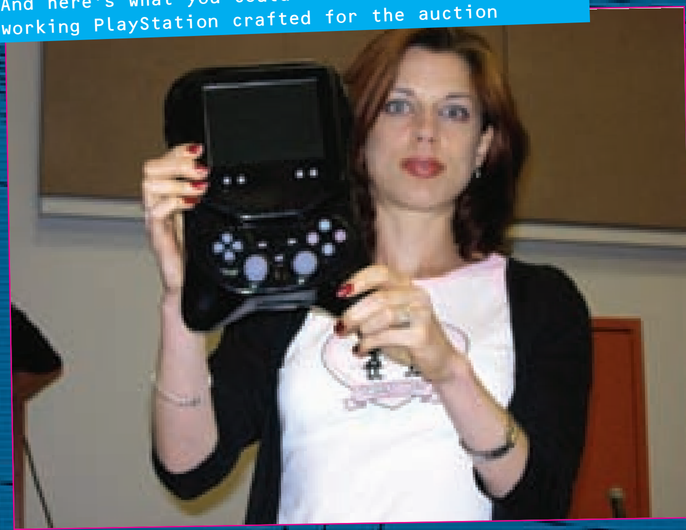
present. This year sadly the selection was smaller than usual, but circumstances were completely out of the organisers' hands here. A large group of machines purchased for the show turned out to be less than satisfactory in both quality and working-order terms, and the Las Vegas collectors who had normally donated to the show didn't decide to make the drive out to San José. Which meant a frantic Friday evening was spent getting what cabs were there into some semblance of working order. Considering the task, I think the guys did excellently with Cyberball, Yie Ar Kung-Fu and Ms Pacman amongst the selection on show. This is one aspect that is being given top priority already so that the large choice of previous years is repeated next year.

During most of the day, musical entertainment was provided by 8bit Weapon, a group of musicians dedicated to fusing old-skool electronic sounds from the likes of the C64 and GameBoy with new technology and real percussion. Seth Sternberger (aka Naughty Boy) and StickChick were on hand to rock da house with mixes of such titles as Crazy Comets and MULE, with their

Raiden sadly isn't playing Raiden. Or Mortal Kombat for that matter




Midway shows off its second Treasures collection. Meanwhile Treasure's Gradius V is in the background


And here's what you could have won – the portable working PlayStation crafted for the auction

compatriot in the background doing the duties on the GameBoy. Their official CD and a new 'bootleg' offering containing many of the tracks heard were available to buy. If you like the stuff at RKO and C64 Audio, then you should also get these now!

History museum

Away from the hustle and bustle of the main floor was the large room housing the museum, more aptly named "The greatest collection of gaming related material you're ever likely to see". No longer a pokey room on the side, the new location allowed for more items as well as providing these items with ample space. A good 30 minutes at least could be spent wandering around and looking at every exhibit. Everything from prototype boxes to early Nintendo TV games to Activision patches to one-of-a-kind hardware was in there, and almost every format in the last 30 years was covered. Matters were also helped by the very friendly security overseeing the room during the day.

The swap meet was different this year. 'Meet' really isn't the word for it either. Instead of being assigned an hour after the show ended on Saturday for people to trade and sell privately, a separate room was available throughout the day, with tables to rent for an hour at a time. All money paid for tables over the weekend went straight to the Special Olympics charity organisation. This new venture proved to be a hit, with the general consensus being that a larger room should be available next year as demand exceeded the number of tables set out. Here it was possible to find the bargains missing from the main hall if you looked hard enough or got there at the right time, including cheap Neo Geo Pocket Color games and copies of PSone Dragonball GT for under US$100.

And then there was the auction which never disappoints. Attendees could enter any item within reason for auction with US$2 of the final price going to Special Olympics, and certain lots available (donated by the organisers and friends) had all proceeds going to the charity. There were Starfox Competition carts; a portable PlayStation custom built with screen; an Atari 2800 game (released in Japan); some prototypes; and a Steel Battalion controller. Coupled together with the humorous banter, two hours never seemed to pass so quickly. All in all, over US$2,000 was raised for charity.

Those of you who read my preview of the show (in issue 5) may recall me mentioning that auctioneer John Hardie is never seen far from beer during the event. This was the case once more. However, as a bizarre gesture to the Special Olympics cause, he decided to auction one of his beers off, thinking it would go for around US$10 and be a nice way to round off the proceedings. Except people kept bidding. And bidding. And bidding. People threw money in to keep it going, all the way up to US$134 in total, all of which went to the charity. These people are nuts for sure, but at the same time generous to a fault!

Saturday night Sunday morning

Post-auction there was a party held by Digital Press in the adjacent hotel complex for many friends and colleagues. Most people had been informed of the location prior, and a lot of them decided to come along and sample the atmosphere, some of

A variety of ultra-rare items for various machines, plus Activision patches







Steve Wozniak talking up a storm during his fascinating session

them a little too much. Which is pretty much par for the course at a DP party. This year's point of weirdness was the acquisition of a professional DP-related shot glass, but you had to down the horrible tasting alcohol within to get one. And so things went on into the night, even after security apparently tried to calm things down.

Sunday naturally started more slowly (recovery from the night before heavy on a few people's minds I imagine) with most taking the chance to relax and play some more games. A lot of visitors are only able to schedule time to attend one day, but to be able to experience everything the show has to offer, both days are a must. Still, it meant more time could be spent on Gradius V and Xybots at random intervals during the day.

The main event of Sunday was the talk and discussion session for Steve Wozniak, Co-Founder of Apple (along with Steve Jobs). Steve took us back in time to days before stock computers were available off the shelf, to when he built his own terminals from scratch and started writing software. Tales of his time with Atari and the early days of Apple were high on the agenda. The topic of Breakout and almost falling out with Jobs was not covered, though I suspect that was more due to lack of time than not wanting to discuss it. All in all, Steve talked up a storm, was open to almost every question thrown at him and was full of insight, enthusiasm and most importantly, the ability to engage the audience.

And as soon as it seemed the show had only just begun, it was over. Two days spent playing games, catching up with people, listening to some great anecdotes, picking up a few items for the collection, and most importantly, having fun. That's what CGE is all about. As usual, it was sad to say goodbye and head on home the following day. RG*

*This year the event was run in conjunction with Special Olympics, a charity dedicated to providing sports training and athletic competition for disabled athletes. Visit **www.specialolympics.org** for more information.*

Celebrity guests

The alumni speeches over the weekend can often be the highlight of the event, and this year was no exception. People affiliated with Entex, Sente and Fairchild were present to talk about their experiences back in the day. Two of the most notable group sessions came from the Activision posse and some ex-Atari coin-op programmers. Even though the Activision guys have been to several CGEs in the past, there is always something new to talk about, and this year being the 25th anniversary of the formation of the company, meant most of the subject matter was related to how and why they left Atari to form the world's first third-party software development house. Conditions at Atari were OK, but it was the lack of visible credit (much in the same way Disney operated in the early days) and working ethic that caused them to up sticks and go it alone.

The Atari coin-op division was a very busy area to be in, with many of the programmers not only competing with each other, but also with the associated home-console division of which the Activision guys used to be a part of. Notable tales included the confirmation that Xybots was going to be Gauntlet 3 until Atari decided it didn't want another Gauntlet game, and that Owen Rubin had to come in halfway through the Space Duel project as the original programmer suffered a nervous breakdown, never to return to work.

When anyone mentions the name of Ray Kassar, the head of Atari during its most prolific time, one of the first things people think of is the ill-mentioned quote of referring to the guys producing the games as "a bunch of high-strung prima donnas". The fact that the rest of the sentence, "but most of them are alright", has been ignored is now consigned to the dustbin of history. When word of this got out, a batch of T-shirts glorifying the event was produced as a way for the floor personnel to get their own back. Cue Dave Comstock, an ex-Atari programmer, to stand up and show off one of the original shirts still in mint condition!



Four of the Activision guys were happy to pose for photographs



Ex-Atari coin-op folks enjoy seeing some old design docs from work



Dave Comstock shows off an original Atari 'prima donna' shirt

Next year...

For those interested in attending next year, the dates and location have already been announced on the official CGE website (**www.cgexpo.com**). In 2005, CGE will be on the 20th and 21st of August at the Hyatt Regency Hotel, just outside San Francisco. So there's no excuse not to start saving now. Hope to see you there!





>Konix: Best of British

With the dream collapsing just weeks away from becoming reality, Craig Vaughan investigates the demise of the Konix Multi System, the best British console that never was...

With the new Millennium well under way, today's joystick jockeys take for granted the continued dominance of Sony, Nintendo and Microsoft within the world of computer and videogames. Rewind 15 years, though, and it's clear that were it not for the fickle hand of fate, this triumphant triumvirate of foreign behemoths might not have had it all their own way. In fact, with a touch more luck, Britain could have been leading the world with its sixth or seventh iteration of a very British console.



It's a steering wheel. No, it's a flight yoke. No, it's a set of handlebars. No, it's all three!

Hopes and fears

Even trivia freaks would be hard pressed to place Merthyr Tydfil Football Club as the spiritual resting place of a stillborn console that promised the earth before descending into hell. But it's here, at a club that finds itself suffering mid-table mediocrity in the Dr Martens League, that Wyn Holloway – father of the console and MD of the long-since defunct company Konix – finds himself Chairman. Back in the late 80s, Holloway's fledgling company, Konix, was enjoying something of a purple patch. Confidence was high and balance sheets favourable. Gamers in Britain and abroad were lapping up the joysticks sold by the company and the self-styled Speedking was leading the way. In fact, Holloway's aptitude for innovative design had even led to the creation of a sister company, Creative Devices Ltd – a think-tank that developed technical products sold for use by other companies.

By 1989, Holloway's bent for tinkering with electronics had given birth to a most remarkable games controller, the Konix Multi System. Its simplicity of design meant that it seemed destined to become the one-stop solution for games players everywhere. Capable of morphing between handlebars, yoke and steering wheel, the compact and ergonomically designed controller was years ahead of its time. Intended for use as a sophisticated joystick, a range of adaptors backed up by some internal rewiring could easily have resulted in compatibility with all the computers and consoles prevalent at the time. Were the story to end there, Konix would doubtless have secured market domination. Fate, however, had an entirely different course planned for Holloway's baby.

Enter Flare Technology, a trio of ex-Sinclair employees based in Cambridge, England. Founded in 1986 by Martin Brennan, Ben Cheese and John Mathieson, Flare initially worked for Amstrad whilst, at the same time, developing technology imaginatively codenamed 'Flare One'. With the single objective of creating the ultimate gaming rig, Flare managed to design and prototype its own machine, producing a blindingly fast piece of 8-bit hardware that easily outstripped any of its peers, especially when manipulating 3D images. Hawking its wares at a prominent trade show, Flare garnered immediate interest in its technology from the likes of Atari and Amstrad. It was Holloway, though, who saw that the technology might be the answer to his prayers. If he could combine his cutting-edge controller with Flare's stunning processor then the gaming world would fall at his feet. Although the marriage seemed made in heaven, an early divorce soon appeared on the cards. To stay ahead of competitors, Holloway demanded that Flare produce a streamlined solution that would fit more readily into his fiendishly shaped controller. He also wanted a 16-bit chip capable of supporting 4098 colours.

As a fevoured year was spent merging the two technologies and attempting the upgrades required, the hype and PR went into overdrive, with Holloway selling the virtues of his breakthrough machine to all and sundry. Enhancements added along the way included plug-in pedals,



The Konix Multi System in all its never-to-be-launched British brilliance


The matchbox gives scale, providing some idea of the compact and stylish design of the console

force feedback for the steering wheel, assurances that games would be priced at a pocket-friendly £15 thanks to the use of cheap and allegedly pirate-proof 3.5in floppy disks and, best of all, a hydraulic chair to capture that 'real arcade' sensation. Other promises included a helicopter controller, a recoiling lightgun, keyboard and exercise bike too.

Fair game

The 1989 PCW show at Earls Court, London was to see the machine's debut, with prototypes available for eager fans to inspect. What surprised and shocked in equal measure, was the lack of games. Industry Supremo Jon Dean had been hired by Konix to oversee licensing and development of key software titles that would demonstrate the obvious merits the machine had over its competitors. Strange then, that only two Amiga ports were present, in the form of Last Ninja 2 (from System 3) and Hammerfist (from Vivid Image). Unfortunately, these ageing titles weren't enhanced to make use of the new hardware; nor was their gameplay suited to show off the strengths of Holloway's controller. When a prototype hydraulic chair burned out its motor on the first day of the show, it appeared that even Jeff Minter's involvement wouldn't save the day.

As delay begat delay, Konix doubled the memory of the system at the behest of concerned games publishers. The likes of Logotron, Ocean, Empire, Titus and System 3 had committed themselves to producing software but were concerned that the company was relying on a system of continuous disk access to ensure the sufficiency of the 128Kb of RAM. Failing to get to grips with programming the hardware, the software companies demanded more leverage in allotted memory. Insistent on maintaining the £199 price-tag, Holloway doubled the memory whilst at the same time trimming his own profit margins. Additionally, it was announced that a hardware port originally intended for cartridge games would instead be used for connecting an extra 512Kb of system RAM. This development alarmed gamers and press alike, with pundits speculating that compatibility issues and frustration would ensue as a result of multiple versions of games having to be written to cater for different iterations of the hardware.

Even with the launch delayed, many developers found themselves in the invidious position of having to rush games in order to meet the tight launch window. That said, just months before the final much-vaunted release date some companies hadn't even received their development machines. As time passed and costs rose, expenses soon outstripped income and Konix went quiet, forced to concentrate on its core business of selling joysticks and gaming peripherals in order to stay afloat. Sadly, though, despite assistance from a company called Add-Ons Ltd, the Multi System as a games console died shortly thereafter, suffering the final indignity of Sega's Megadrive and Nintendo's SNES flooding European markets, stealing both Konix's thunder and gamers' hearts.

The Multi System soon melted into folklore, latterly to

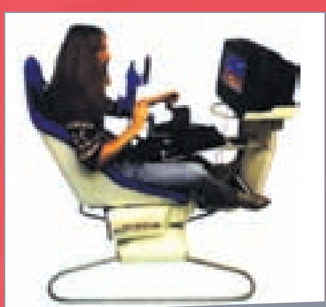

Fans of flight simulators were to be well catered for with the ability to add yoke control to the Konix Multi System





Originally designed as a PC controller, the Multi System eventually saw an American launch as an enhanced joystick

be remembered as the best British console that never was. But the technology didn't go to waste completely. Legendary Llama-loving Jeff Minter was a Flare One developer. His Mutant Camels for the system game was one of the few pieces of 'nearly finished' Konix software. With Flare One dead in the water, Flare moved on to designing Flare 2. Jeff Minter was heavily involved in that project which was later sold to Atari and became the Jaguar – albeit the big cat met the same



Hype aside, everyone was keen to be the first to sit in the hydraulic chair. Here Jeff Minter puts the chair through its paces

fate as its predecessor. Additionally, the early 90s saw the American release of the Multi System as a dedicated PC games controller – an enhanced joystick with no console pretensions.

Future shock

Despite the demise of the Konix Multi System, in an eerie piece of foresight, Holloway himself best described the need for a British games machine when doing the press rounds prior to the Multi System's intended launch date, saying: "What do they (gamers) want? Do they want the Japanese to completely take over the business and dictate to us what we can publish, where we can publish it, and how many units we can sell?" With the death of his dream began the slow but inevitable journey to the very scenario he envisaged: region-locked games, controlled non-simultaneous worldwide releases and publishers having to pay licence fees in order to code platform-specific software. Reason enough to have wished Holloway had succeeded. And that is how history recalls the death of a legendary piece of gaming hardware. As is often the case, however, it's not quite how those involved remember events unfolding, as our exclusive interviews with those on the inside reveal...

Experience the reality

Considering the impact that the Konix Multi System would have had on the gaming industry, surprisingly little has been written about its development and demise. Here, on the machine's 15th anniversary, we expose the truth behind the headlines, whilst speculating on what might have been. Joining the debate are Jon Dean, then Head of Internal Software Development at Konix, and Fred Gill, Co-Founder of Attention To Detail, the company responsible for writing development tools for the system.

Jon Dean is a heavyweight in the gaming industry and his current position as Vice President of Product Development for Midway Games in America gives an indication of his standing within the community. His working life has seen him rub shoulders with the biggest names in the industry and he's the brain behind some great games, including Aliens, BallBlazer, Dandy, Ghostbusters and the Zork series. But it's his involvement with the Konix Multi System in the late 80s that best demonstrates his passion for gaming.

Fred Gill co-founded Attention To Detail in 1988. Later, he was involved in programming Night Shift (LucasArts), Indiana Jones & The Fate Of Atlantis (LucasArts), CyberMorph (Atari Jaguar bundled game), and BattleMorph (acclaimed sequel to CyberMorph for the Jaguar CD). Gill was Technical Director from 1991 and formally retired from programming in 1997 when Kaboom acquired ATD. ATD went on to produce the critically acclaimed Rollcage and Rollcage Stage II, along with the BAFTA award-winning Sydney 2000. Gill became Group Technical Director of Kaboom in 2000 and in September 2003 co-founded Gusto Games (visit **www.gustogames.com**) with several ex-Silicon Dreams employees.

Fred Gill started programming games on his ZX81 in 1982, progressing to the ZX Spectrum in 1983. His dad signed his first publishing contract in 1984 (Fred was too young at 17 years old) before Fred went on to Birmingham University. There, he continued to write games on the PCs installed in the Computer Science lab, and it is where he would meet Chris Gibbs, Martin Green, Jim Torjussen and Jon Steele, with whom he would co-found Attention To Detail in 1988 after graduating. It was the summer holidays of 1987



Fred Gill, Co-Founder of Attention To Detail, who wrote the software development tools for Konix



CTW
11.9.89 BRITAIN'S TOP COMPUTER TRADE WEEKLY ISSUE 253
Konix takes soft option for Multi-System titles

Computer Trade Weekly details the setting up of Konix's own in-house software label during 1989. Jon Dean (left) and Wyn Holloway are pictured

that were to prove fateful. Nalin Sharma (who had published several titles on the C64 in the 1980s) joined forces with Mark Tisdale (audio), Martin Green (programming), Chris Gibbs (art) and Jon Steele (programming) to convert the arcade game Super Sprint to the Atari ST for Electric Dreams. The project was delivered on time, to critical acclaim and commercial success – all within a budget of £9,000. Fred, Jon, Chris, Martin and Jim then went on to form ATD.

The Konix connection

Dean's early career highlights are no less colourful, as he recounts: "I guess you could say I am a bit of an all-rounder in the games industry. I cut my teeth back in 1982 when I joined Atari as it opened up in the UK. The advantage of starting out back then was that you got to be involved in just about everything. There were no 'teams' to speak of – a game was typically created by one person working from their bedroom. They did all the programming, artwork, audio



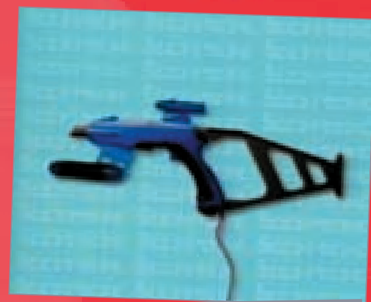
This is the vision Holloway had for the Power Chair. Cool indeed, but too expensive to mass produce

and game design. Projects took three months, and the whole thing was far less complicated than it is today. As a result, it was easier to get exposed to all aspects of the game-development process. I went on to set up Activision's European development group and we covered a plethora of platforms. In 1988 I set up my own company, Project Management Consultancy (PMC). I was privileged to work with the great and the good of the industry at that time, including Activision, Argonaut, David Braben, LucasArts, Archer Maclean, Microprose, Mirrorsoft, Mindscape, Probe, System 3, US Gold, Vektor Grafix and others."

With his own company on a firm footing, Dean received a phone call that piqued his curiosity and saw him hot-footing it to Wales: "I took a call from a guy who introduced himself as Wyn Holloway. He told me he was not an inventor, but a designer, and that he needed some advice on a secret new product his company was hoping to introduce. I knew that Konix was the market leader at that time in joysticks, and I told Wyn that I couldn't help him; my expertise was in software production and management, not in hardware. But as I was soon to discover, Wyn doesn't give up that easily. He persuaded me that I should drive the three hours to their HQ in South Wales to talk, and told me yesterday wasn't soon enough! The Konix plant was impressive – nestled in a new business park in Gwent, South Wales. The joystick-manufacturing emporium was clean, efficient and staffed with happy smiling faces. Konix was a local success story, slowly cornering the world joystick market.

"After a tour of the factory, Wyn introduced me to a couple of people, including Chris Green (a former ICL boffin) and Robert Kent, who were Wyn's key masterminds on this new project. It took about two hours before they would tell me anything – their secret was under tighter security than the US President! Behind closed doors in a shirt-sleeved session, I learned that Konix had a sister company that was used for R&D – Creative Devices – and they had created the ultimate joystick controller, codenamed 'The Slipstream'. Chris uncovered a painted wooden model, and it dawned on me that the secret looked like a steering-wheel controller for a games machine. I began to wonder if I had wasted petrol getting there. But then they started to manipulate the wheel, and quickly reconfigured it into handlebars. Another twist and it was a flight yoke. They produced a set of foot pedals to complete the setup. I had to agree, this was going to be a pretty impressive games controller."

"I was impressed. A European games console? Wow! Remember, this was at a time before Nintendo and Sega had conquered our land, and a time when hardly any of the game developers or publishers had the opportunity to work on consoles" – Jon Dean on the prospect of a European-developed console



The Konix Gun with attachable shoulder mount to turn it into a rifle

Dean had one burning question as he sat round the table: "Impressive, but why am I here?" Dean's curiosity had clearly got the better of him, so he stayed to see how events would unfold: "Wyn's style was to ask you questions – 'What do games players really want?' 'What comes after the joystick?' He told me that these questions occupied him constantly, and had led him to the idea of the Slipstream controller. 'But that isn't enough,' he continued. 'All you need to do is read the letters pages of the magazines and you'll see what the customers want.' Then a change in the line of questioning, 'Have you heard of Flare Technology?' Of course I had, they were the Cambridge-based chipset designers, who had recently shown an impressive prototype of the Flare One computer. 'We've hired them to design a custom chipset that we intend to put into our Slipstream. It will be the ultimate games console.' As I sat with my mouth open, speechless, Wyn got into his groove: 'It's not good enough to make a more complicated joystick. Kids these days want to drive their Dad's car, or fly a plane, or speed on a motorbike. So why can't the joystick itself provide that experience?' I was impressed. A European games console? Wow! Remember, this was at a time before Nintendo and Sega had conquered our land, and a time when hardly any of the game developers or publishers had the opportunity to work on consoles."



The Power Chair was to have a built-in keypad

Gadgets and gizmos

Dean hadn't seen everything that Wyn had to offer, as he recalls: "Wyn was concerned that the machine be seen as more than a driving or flying simulator, so he wheeled in a range of peripherals, including a light gun that was styled like a B-movie ray-gun, 'So people don't think it's a real gun,' noted Wyn. 'This is a family machine.' Then Wyn mentioned the Power Chair – a motor-powered chair that you plug the Slipstream into (not the other way around!), and hey presto!, instant arcade. Konix was an excellent industrial designer. The chair was a simple idea: imagine if you balanced a pen on the end of your finger – how much effort does it take for you to make that pen move backward and forward (but not fall off your finger)? Answer: very little. So make a lightweight chair shell suitable for an average adult, and balance that chair on a central point. Now use two small motors to slightly offset the balance, or correct it, under software control. The Power Chair didn't move that much, but if felt like you were



Pedal to the metal, as the Multi System gets another peripheral

moving a lot when you were simultaneously flying, or driving using the Multi System. The chair wasn't like a complex space simulator, although it had those connotations in people's minds, which was great."

By now, Dean's head was spinning: "Wyn needed help and that was where I came in. He could deliver the hardware but wasn't sure how to deliver the software. They were inclined to develop it all themselves, and wanted to know what it would cost. My advice was simple: software would either allow the Slipstream to deliver his vision, or would relegate it to just so much plastic. Software had to be plentiful and varied, and it needed to be of the highest quality. Unless he had mega-bucks to fund his own software development operation his best strategy would be to work with existing software publishers and developers. I worked through some rough figures for Wyn and his team, and they quickly agreed. Their resources were limited and the project was already high risk, and the danger would increase even more if they went solo on the software route. Thus I was asked to come up with a strategy for getting software for the Slipstream."

Dean quickly went to work, with very specific ideas on the way forward, as he remembers: "First, Konix needed to control the software on the platform. Saturating it with too many driving games and not enough variety would create retail problems, and ultimately low-quality titles would give the new platform a bad reputation. Konix needed its own licensing and QA operation, to work with publishers and developers to maintain suitable flow and quality. Secondly, to ensure variety, I recommended that Konix itself fund and publish some titles that publishers might not risk in the early stages – let's face it, everyone would want to publish a racing or flying game first! Thirdly, the platform needed an easy route for software developers to work with the system. We needed a set of custom development tools for the Konix Multi System that provided an efficient pipeline onto the new technology. We would need a compiler and debugger, some art and audio tools. Additionally, we would need to 'pitch' the Multi System to games publishers and developers to ensure support. We would need some sales materials, a legal licence for them to consider, some impressive technology demos and a business model showing how they would make money from supporting the system. We could charge a nominal amount for development hardware (which would be costly for Konix), and we would need a roll-out plan."

As a strategy, Dean's plan seemed entirely sensible and it didn't meet with any objections from Konix: "I ended up spearheading the strategy as a contractor for Creative Design Software, the company that Konix set up to handle the software side of the Multi System. I devised the licensing plan with Konix's lawyers, and the business model with Wyn. Through my other consultancy work, I was able to find developers and products for Konix to self-publish. I also knew PDS, the development system run by Andrew Glaister and Fou Katan, and encouraged them to provide a Multi System brand of their development hardware and software. I also knew Attention To Detail (ATD), a young and dynamic software and hardware company, who we commissioned to write a custom graphics package and FM sound synthesis utility. ATD was also commissioned to work on the custom file format for the 3.5in disk system employed on the Multi System. Finally, ATD also created the handful of demos that would show the world just what this chipset was capable of doing. One of the main demos was a rotating wire-frame cube, which had a different game playing on three faces, and Konix logos on the remaining three. You could rotate and speed up or slow down the cube at will."

Third-party support

With the above steps in hand, Dean began a tour of European publishers seeking support for the fledgling system. He recalls: "Without exception, everyone was supportive. The idea of a

>It's ACE!

The highly regarded ACE Magazine joined in the Konix hype. The hyperbole typical of the era is demonstrated by the Multi System's domination of the magazine's cover. An in-depth four-page feature was included inside.






INSIDE STORY

PROGRAMMERS SPEAK

THE ACE VERDICT

SOFTWARE SCHEDULE

British console was just as appealing to everyone else as it had been to me. They liked the low-price points for the software (£14.99 and £19.99) and the target price for the hardware (£249 for the Multi System, and a further £249 for the Power Chair). But that didn't mean that everyone wanted to commit to the system right there and then. Many voiced concern that Konix didn't have the financial resources to deliver the system. Others didn't like the restrictions we were proposing on quality or title selection. Some didn't like the idea of paying a few grand for a development kit – even though it was refundable on delivery of a master disk (compare and contrast with the monies you spend these days on dev kits from Microsoft, Sony or Nintendo!). Quite a few wanted to wait and see."

Despite these inevitable teething problems, Dean delivered on his promises in spades, signing up the best software developers of the time. He secured 24 titles for shipment in the first 12 months – 10 at launch. Dean continues his story: "I used to take a camcorder with me on my travels so I could show my clients what they were paying for. I still have much of the Multi System work on tape today. Two things struck me about all of the games I saw – they seemed faster than everything else, and more colourful. I saw everything that was in production, right through from very early prototypes to more complete games. I recall ODE's Sailing at a very early stage and remember being seriously worried that players might get seasick if using the Power Chair. Mev Dinc's Hammerfist was a delight to play, as was Jeff Minter's Mutant Camels '89. Both were well-executed, fun arcade games. The Bikers game from Argonaut was great to play in the Power Chair, even though it wasn't that sophisticated – it didn't need to be."

Dev tools

Dean tasked Attention to Detail (ATD) with the lion's share of the software muscle needed to make the Konix Multi System a reality for developers. Fred Gill, Co-Founder of ATD picks up the story: "We were working on an Atari VCS 2600 project for Activision (still a huge market in 1988) when Jon Dean called to say he'd seen something amazing that had the potential to revolutionise the games industry. And it was British. Jon identified two areas where ATD could help. Since leaving university, we had been working on contracts and writing our own in-house tools (assemblers and an art package) to give us an edge in the market. Jon correctly identified that, in order to build a critical mass of developers for product, the system needed several things. We were asked to help with the tools to make developers' lives as easy as possible, and to create demos to 'blow them away' (this would help bring



At the British Toy Fair the great and the good from the software industry gathered to show their support for the system. That's Wyn Holloway sitting in the Power Chair

publishers and the public onboard as well). We were asked to create the audio and graphic tools to work with the system, and several demos."

Gill recalls the first time he saw the Multi System: "I remember seeing the first prototypes, along with the other partners in ATD. It was amazing. It didn't look like a computer or a traditional console – it broke the mould; the machine was the interface. We fell in love with it immediately. The specifications were pretty good too. The early systems were exactly the same as the Flare One system – Z80-based (which ATD had lots of experience in) with some very interesting graphical capabilities; the guys at Flare (ex-Sinclair) knew their stuff. In particular, there were two interesting technologies: the first was a colour hold mode; the second was the ability to program the Blitter chip with up to 256 instructions in one packet. Both gave the machine amazing power over competitors, especially when drawing polygons."

Despite their glowing reputation Gill reports being put on probation by Holloway: "We were given a Flare One to prove we could 'handle it' before Konix would consider working with us. I was the only one free at that time. We racked our brains to try and come up with the most cutting-edge demo we could. In the end, we copied the landscape from Virus – just released by David Braben on the Atari ST and Amiga – and used the tile colours to write a message for the viewer. We delivered the demo in 11 days (and less than 600 bytes of Z80 code) and running at a full 50Hz thanks to the colour hold mode. The audio chip in the Multi System was a custom DSP, and developers could program it however they wanted to. But this was daunting when you first started working with the system. ATD created a synthesiser core on the DSP, with 10 completely configurable channels. These were mapped onto traditional audio controls (ADSR, volume, frequency, etc) using parameter blocks and a customisable graphical user interface to control them from the PC. A full sequencer was implemented on the top of this. Developers could create music, using the built-in synthesiser from day one, or completely customise the synthesiser core, but still control it from the sequencer and GUI when they were comfortable with the technology."

Gill recalls putting together the graphics utility: "The art package was stunning. Not only was it extremely fast (PC-based) due to revolutionary algorithms inside which 'wrote' optimised assembler code on the fly to display primitives on screen (a technique later used in Microsoft's DirectX). The only problem was export formats: due to the powerful Blitter chip, there was no right or wrong way to save out graphics. Our solution was to implement a scripting language that was based on C, and nicknamed 'Small C' internally, which then

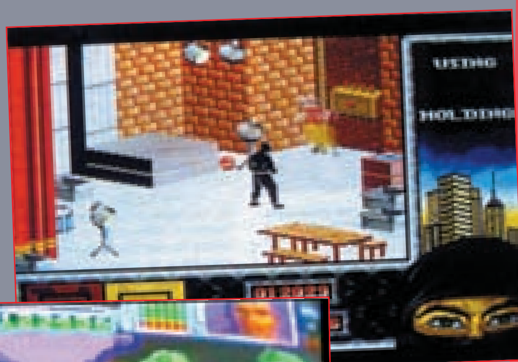

NEWS
KONIX HERE AT LAST
NEWS

Computer and Video Games did its own two-page spread on the wonder machine

>Software spoils

Two dozen titles were lined up for launch during the first year of the Multi System's life. Included in the range were the following games:

Bikers (Argonaut/Konix)
Konix Chess (Konix)
Hammerfist (Vivid Image)
Last Ninja 2 (System 3)
Manchester United FC (Krysalis)
Mr Do's Wild Ride (Electrocoin)
Mutant Camels '89 (Llamasoft)
Revenge Of Starglider (Argonaut/Konix)
Rotox (Binary Design)
Run The Gauntlet (Ocean)
Sailing (ODE)
StarRay (Logotron)
Super Ski Simulator (Microids)
Trip-A-Tron (Llamasoft)
Tunnels Of Doom (ATD/Konix)
Vendetta (System 3)

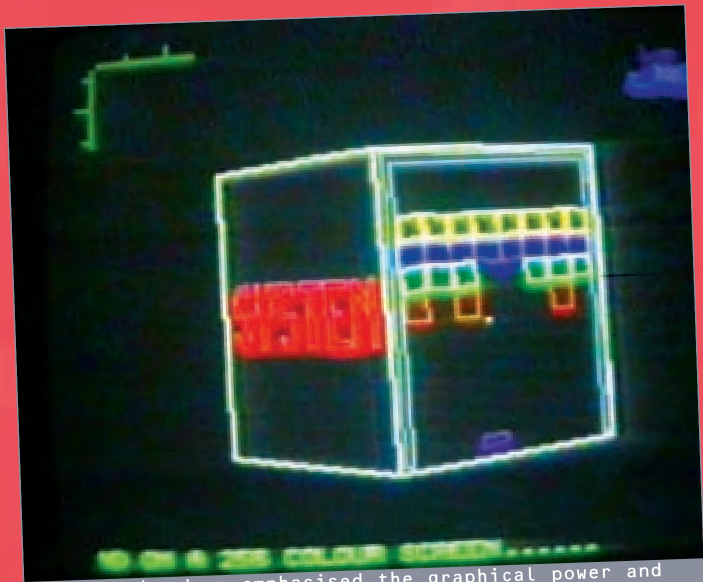








Work-in-progress screens from Last Ninja 2, Hammerfist, Bikers and Mutant Camels '89



The 3D cube demo emphasised the graphical power and processing speed of the Multi System

> "Two things struck me about all the games I saw. They seemed faster than everything else, and more colourful. I recall ODE's Sailing at a very early stage and remember being seriously worried that players might get seasick if using the Power Chair" – Jon Dean on the Multi System software line-up

became POND. This allowed development teams to manipulate the screen pixels, palette, etc and save out the data in any format they wished. This flexibility meant that we continued to use the art package internally at ATD until 1995, some six years later."

Their work didn't end there, though, as Gill recalls: "The responsibility for the demos fell to Jon Steele and myself. I worked on game demos – with a jet ski moving down a river, for example – while Jon worked on the technical 'tour de force' demos. The first of these was a cube rotating in 3D with Konix logos on three sides, and three different games playing on the other sides (Space Invaders, Asteroids and Breakout). It ran at 17+ frames per second, which was an amazing testament to the power of the Multi System and the programming prowess of Jon Steele. The second was a Hitchhiker's Guide To The Galaxy-style fact sheet, which had a 3D rotating model of the Multi System being drawn in lines from nothing, then becoming solid, while marketing text appeared. Both were amazing for the time."

With the work done, it was time to show off the machine and software to the world. The fact that the hardware wasn't ready was a minor detail and not one that ATD was going to let get in its way, as Gill confides: "I remember the first show where the press, public, developers and publishers were to be shown the 'final' hardware and software – the British Toy & Hobby Fair in London. Unfortunately, the hardware wasn't ready. In fact, we didn't have any to create demos with. Finally, at 6pm the day before the show, a small number of hand-built controllers (not final Multi Systems) appeared in London, ready for the show the next day. We spent until 4am integrating them with the code, ensuring everything 'felt' right. And then we spent another two hours hiding the Flare One units away in cupboards, connecting the controllers, and locking them down (so nobody could move them and discover they weren't real final hardware). It was exhausting – but Konix pulled it off. Everyone who visited the stand believed the final hardware was 'ready'. Oh, the things that went on in the industry in those days!"

Hardware hassles

So why didn't the Konix ever see a retail release? Dean answers: "I guess I realised things weren't going well when I stopped getting paid for my work! This was perhaps six months before the system was due to ship. Wyn kept assuring me that I would get paid and as I had become the public face of the Slipstream in the development community, walking off the job could have badly impacted their launch and I considered it unprofessional to do that. Besides, I had other clients too and I could afford to let such a high-profile client have a little credit – I learned credit control the hard way!"

As matters progressed, Dean could see the writing on the wall. He recalls: "There were some serious problems on the Konix hardware side. The floppy disk technology was proving hard to get working reliably. Worse, the Power Chair was proving much harder (costlier) to move from prototype to production. At one of the few public demonstrations of the chair, some last-minute ad-hoc changes were made so that it at least worked. This included the addition of an adapted Black and Decker drill to act as the small motor powering the chair movement. PCW of September '89 commented that the noise generated by the chair reminded their reporter of a visit to the dentist. But the demo didn't last long. Less than five minutes into Mutant Camels '89, sparks were heard from the internals of the Power Chair and it was swiftly switched off, after which there was the distinct aroma of burning circuits. Nothing was said about it but it was the last time it moved under its own steam that day."

Setbacks aside, Konix soldiered on, undeterred. Dean recalls the atmosphere of the time: "What kept us all going was the enthusiasm that the system was generating. It was the PR event of 1989. Wyn's little Welsh outfit was attracting some very high-profile attention. Over time, I recall several helicopters containing VIPs landing in the Konix car park. Wyn had numerous offers for the Multi System, but he wasn't about to sell out to anyone. Perhaps the best-kept secret of all is that the Multi System was very close to becoming 'The Skywalker'. I'd been working with Lucasfilm on a separate contract and was urging them to get involved as a publisher. They were so interested that that they tried to buy the project outright. But Wyn was having none of it. This was going to be a British success story."

With the much-anticipated launch date approaching, Dean continues the story: "The week before the PCW Show launch I had stopped working for Konix due to unpaid bills and no one returning my calls. The day before the show opened, the exhibition hall was a frenzy of activity – but the Konix booth was empty. Rumours abounded that the Konix crew had been delayed by high winds over the Severn Bridge. Konix PR assured everyone that Konix would be there the next day. I recall Tim Chaney, at the time of US Gold, who had been one of the sceptics I had been

urging to support the system, saying to me, 'It's not going to happen, is it Jon?' He was right – the show opened, and no Konix.

"By a bizarre twist of fate, I was working in a small booth smack-bang opposite the Konix stand, for the Society of Software Authors, a voluntary non-profit professional body that I had helped found. I seemed to be the only person around connected with Konix, and I fielded all the questions as best I could, trying to remain professional throughout. The Konix Multi System was once again the big news story, but now for all the wrong reasons. For weeks after, it was the lead story in trade newspaper CTW. My split with Konix was soon news, and a host of suitors who were looking to buy the project from Konix began to contact me, trying to pull things together.

"Wyn did launch the Multi System eventually, but without fanfare and as a controller only. Flare went on to work with Atari, and the chipset evolved to create the heart of the Jaguar. Many of the developers ended up creating Jaguar titles because they knew the architecture so well. One of the Flare designers worked with Argonaut and created the SFX chip for the Super Nintendo. It's a little-known fact that the proposed Return of Starglider Konix game evolved into Starfox."

Looking back

Reflecting on events now, Dean has mixed emotions: "The Konix Multi System left a bitter taste in my mouth, and many others who were caught in the Multi System 'tractor beam'. But I do remain proud to have been associated with it. The product's tagline was 'Experience The Reality' – and while that became something of an irony (no one could experience it!), it so nearly happened. I don't see it as a blemish on my career. It was an embarrassment for a while – after all, it was such a public humiliation. But I had a good reputation, and people still wanted to work with me after Konix. I held up my end of the relationship with Konix with professionalism and integrity – we had software toolkits, we had licensed products, we had the business model rolled out, a lot of which I pulled together myself. I think it's something to be proud of. Konix didn't fail because it didn't have software! From my perspective it seemed that the project was only viable for Konix's finances on a limited scale; however, the project caught on in such a big way that to fulfil the demand that they had created, I imagine that Konix would have needed massive funding. I speculate that Wyn and his board didn't want to give up as much of their company as would have been necessary to secure funding."

Fred Gill reflects on how the Konix saga ended for ATD: "I remember how we got paid for the last piece of work we did for Konix (the disk copy protection mechanism). Three of us met with Wyn in a car park in Coventry. Wyn had the amount we'd agreed in cash, and we had the final source code for the copy protection system needed to release the machine to production. At this point, we knew it would never come to market, but Wyn never accepted this. The money and source code were exchanged and we never had any dealings with Konix again after that."

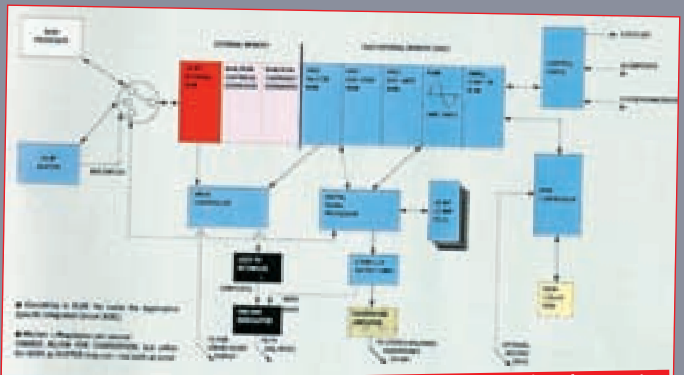
But what if the Konix had launched? "It's a real shame the Konix never came to market," says Gill. "It was powerful (for the time) and had a great following from British developers. And it was revolutionary – it was as much about control as the power. Some 15 years on, we are still trying to improve the way consumers interact with games. It's only recently with the EyeToy, SingStar and the soon-to-be-released GameTrak (from In2Games) that games have been opened up to the truly mass-market audience. Would the Multi System have achieved this 15 years ago? I'm not sure now, but we certainly felt so at the time."

Dean agrees: "There's no doubt that if Konix had succeeded, the videogame market worldwide would be different today. It was a different offering to the rest and it could have competed very

>Under the bonnet

The Konix Multi System wasn't vapourware – working machines existed and were seen in public. Jon Dean recalls getting his hands on a prototype Multi System: "It was an astonishingly clever bit of kit, but without it in front of you it's difficult to describe effectively how it worked. Imagine an inverted 'U'. Imagine that the outside of the 'U' arch forms the base. The inside of the arch is a solid piece, or column, that moves up and away from the base – attached to this is a flight yoke, in a 'W' shape. The solid column can be fixed in position, or it can freely move back and forward just like a real flight stick. A potentiometer allows software to read the position of this column, so it has multiple game applications. It also vibrates.

"Two 'fire' buttons are included where your thumbs would be. The ends of the flight yoke can be twisted sideways and back – suddenly they're handlebars for a bike, jet ski or motorbike. Twist the handlebars back to the original vertical position, and clip on a circular overlay – now it's a steering wheel, with holes allowing you to access the 'fire' buttons. There's a pedal unit hooked to the back of the base, offering four different inputs. These could be used by games as brake and accelerator, or perhaps they could be used for caterpillar or helicopter rudder controls. The base included two joystick ports. A helicopter controller could be connected to the joystick port, also a light gun and a conventional joystick. On the side of the base was a three-position gear-shift stick which could be used by the software like a 'select' switch, for volume etc, or as a true gear-change device."



The guts of the Konix Multi System made it onto paper and even into prototype form, but never got as far as retailers

Spec-tacular

Considering the prevalent technology of the time, the Konix Multi System's circuit board was a wonderfully compact 6in by 4.75in. The machine boasted a 16-bit custom chip that contained the video generator, colour palette, disk controller, Blitter, ROM, fast RAM, 12 MIP Arithmetic and Logic Unit, RISC Digital Signal Processor (DSP) and digital and analog ports. The Graphics resolution was limited to suit the need to output to PAL and NTSC TV standards, with the best resolution being 256x200 oblong pixels in 256 colours. This used one byte per pixel, giving incredible speed but taking 50Kb for each screen. The best resolution the machine could muster being 512x200 in 16 colours, again using 50Kb.

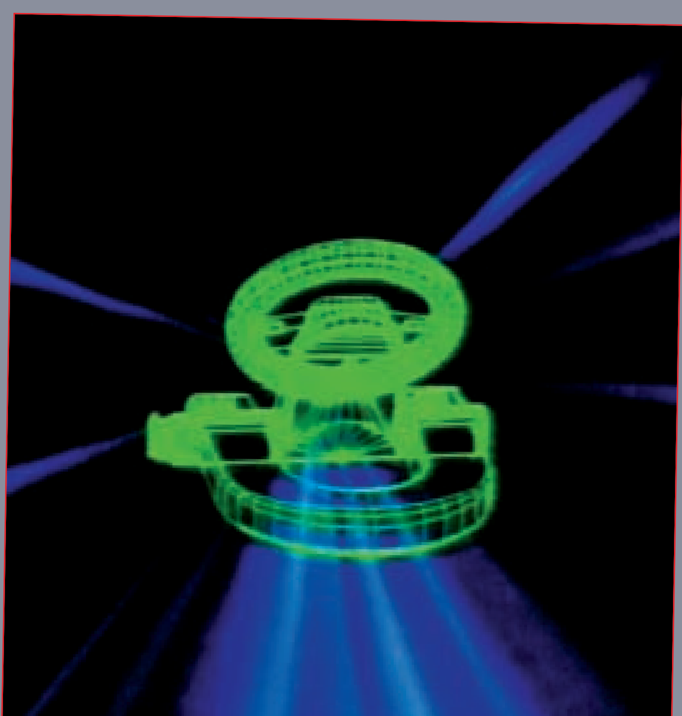
The processor and Blitter took turns controlling the main memory – 128Kb was initially budgeted for, though this was later planned to be increased to 256Kb, with room for an additional 512Kb to be fitted to a RAM-expansion cartridge. The 8086 ran at three-quarters



An unusually factual advert for the time details exactly what the Konix Multi System had to offer gamers

of the speed of a typical Amstrad portable. Heavy maths and memory operations were handled by the DSP and Blitter to increase speed. The Blitter was fastest, handling one byte per pixel, there being no need to read background data before writing. Alternatively, the Blitter could move the contents of memory at almost 5Mb a second, after allowing for display time. It supported transparent colour and could detect collisions automatically. The Digital Signal Processor and palette had their own uncontended data channels inside the ASIC. The Harvard architecture DSP read instructions and data simultaneously, at a steady 24 million words a second.

A 16-bit arithmetic and logic unit plus an internal ROM look-up table, helped the DSP to synthesise FM sound and generate 3D displays at awesome speed. The Multi System hardware excelled at 3D colour panel graphics. Together the DSP and Blitter could process 4,000 3D vertices per frame. The DSP had its own fast RAM; the Blitter could rewrite all the DSP code RAM in one TV line. Almost everything was memory-mapped, giving the DSP a great deal of control over the Blitter and video controller. Its multiplication instructions were said to be over 50 times faster than the 68000 in the ST or Amiga.



The promotional video sold the dream, but Konix never sold any consoles

"One of the Flare designers worked with Argonaut and created the SFX chip for the Super Nintendo. It's a little-known fact that the proposed Return of Starglider Konix game evolved into Starfox"
– Jon Dean on the surprising origins of Nintendo's Starfox (aka Starwing)

well. Konix would have had a fight on its hands, but at retail it would have been a very attractive offering for consumers. I believe it would have forced Sega and Nintendo to alter their marketing strategies. Sega and Nintendo had little boxes; the Konix, by comparison, was curvy, big and sexy. Our biggest challenge would have been in software – the other consoles boasted some impressive, seasoned titles from around the world. The Multi System's launch would have made it easier for me to sign high-profile franchises to the platform, and it would likely have found a niche in racing and flying games, as well as pushing the 'arcade in the home' angle. Remember: each console cycle acts as a foundation for what follows. Platforms with the best technology have never 'won' the videogame market – the Atari home computers were technologically advanced when compared to the Commodore 64, but Commodore 'beat' Atari. The Sega Saturn was a more advanced system than the Super Nintendo, the Dreamcast more than the PlayStation, the Xbox more than the PlayStation 2... Quality software, attractive pricing of the hardware and great marketing (giving the platform an 'edge') seem to be keys."

Jon Dean concludes the Konix Multi System story: "The Konix had an edge – it was truly different. It would have made consumers see their videogame systems in a whole new light. Had it launched, I believe that we would have seen more peripherals and more functional consoles than we have in the past 10 years – not just boxes. It would have caused a reaction from the other consoles. Whether the Konix would have survived, who knows? Wyn had some great ideas and he might just have turned our business on its head. What if it had been launched as the 'Skywalker'? Imagine what that would have done! I have yet to meet someone who isn't blown away by it. Even today, I live and work in the USA where most people have never heard of the Konix Multi System. I describe it to them, or show them the video, and they are still turned on by the concept. I think that Jeff Minter and I are among the few people who spent any time in the Power Chair hooked up to a Multi System, playing games. It was an impressive experience, like nothing else. I hope one day that something like it will come to market."

With special thanks to Jon Dean of Midway for his guidance and enthusiasm. Without him, this tribute to the Konix Multi System would not have been possible. RG*

"It's a real shame the Konix never came to market. It was powerful and had a great following from British developers. And it was revolutionary"
– Fred Gill on the missed opportunity that was the Multi System

>Fallen star

A good number of games were lined up for the launch of the Multi System, but none were more anticipated than Logotron's StarRay

Brian Pollock is 38 and lives in Ayr, Scotland. He's currently employed at Picsel Technologies, but back in 1989 he was one of the chosen few fortunate enough to be signed up to create a Multi System game. Pollock takes up the story: "Prior to the Konix Project, I'd worked on a handful of games for the Spectrum, C64, Amstrad and Atari ST, writing in assembler, mainly Z80, 6502 and 68000. But I hadn't done any PC work. Nonetheless, I found myself on a train heading to a Konix conference somewhere in Wales, reading an 8086-programming book to get myself up to speed."

Ray of light

Pollock recalls being asked to take on a port as part of his work for the system: "I was commissioned to code StarRay, and as far as I was aware, it was the only port being written for the Multi System. As best I remember, Steve Bach of VectorDean originally developed StarRay before going on to code the James Pond series. Chris Sawyer of Railway Tycoon fame had previously coded StarRay for the PC and I recall my initial impressions being that it looked a lot like an updated Defender clone. Thanks to the graphics hardware within the Multi System, there was plenty of room for improvement over previous incarnations. For instance, I was able to add extra parallax layers, and the colour resolution allowed for some depth-of-field effects to be added too.

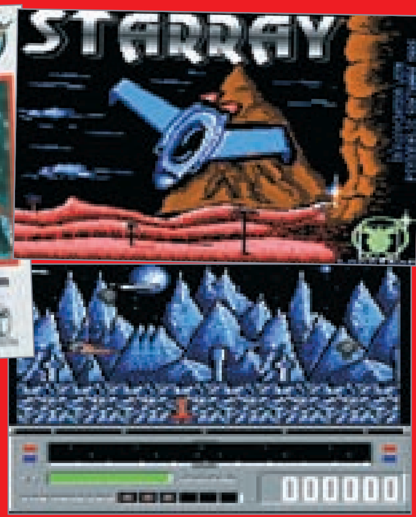
"The Multi System was an impressive console, even without the attention-grabbing chair. It might look like a low-end PC today, but at the time you'd have paid nearly £2,000 for a mid-range PC (say a 16Mhz 286), which would have comparable graphics to the Multi System (VGA 256 colours at 320x200), but probably no soundcard, unless you'd paid extra for an adlib board. Unlike other game systems available, the Multi System's sound was entirely software driven. All other home computers at the time had hardware sound architecture. Even the most powerful and impressive – the Amiga – had a fixed number of channels. The Multi System was different: it had none of the usual sound hardware, but benefited from having a Digital Signal Processor (DSP) and stereo output. This meant that you could choose how many sample channels you had, or how many chip-sound channels, as well as how complex each one was."

Pollock remembers the work in progress version of StarRay being well received by his peers: "Jez San of Argonaut said of StarRay's music: 'It sounds like a John Carpenter soundtrack,' referring to Assault On Precinct 13. The music must have been highly thought of, because I was asked to do something similar for the Last Ninja. I don't remember doing it, but I remember being asked!

Life's a beach

Work on StarRay went smoothly: "I spent much of the project waiting for new revisions of the hardware to appear. That gave me plenty of time to tinker with the graphics, sound effects, music and gameplay, but other than that I spent a lot of time on the beach. StarRay was one of the few games at all the shows and conferences that looked and sounded like a complete game. Indeed, it was pretty much finished – graphics, gameplay, sound and music, everything was there. The final piece of the jigsaw was making sure it loaded from disk. The





The Commodore 64 version of StarRay, ported by Psychodelic Software

first release of the development boards had no disk drive. Everything was sent down a wire from a PC to the dev-board. My second (and final) board did come complete with a disk drive, but as luck would have it that only arrived days before the game and the Multi System were cancelled.

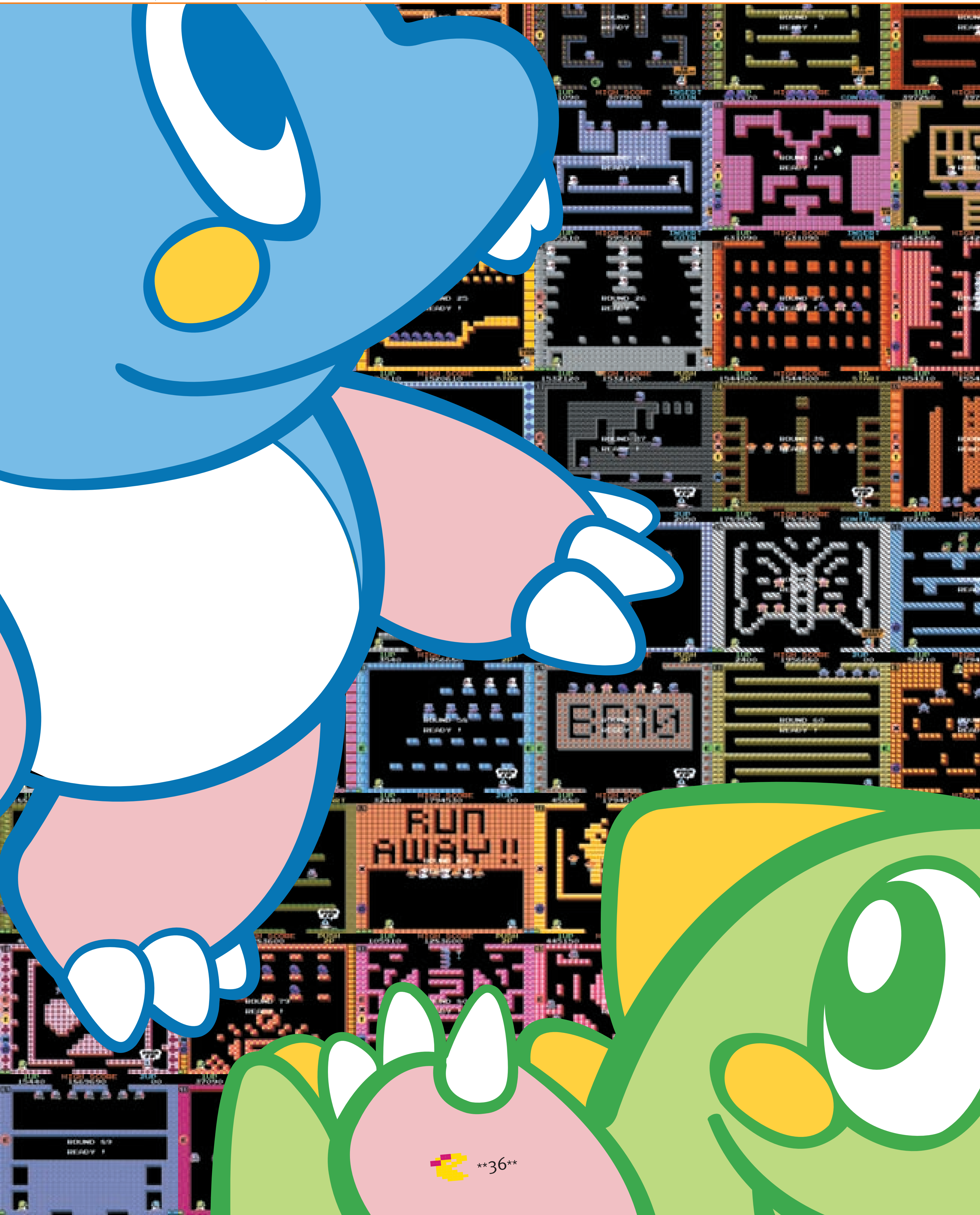
"As an aside, I remember seeing a BBC QED program about the dangers of computer games which, bizarrely for me, featured a clip from the Multi System version of StarRay. It was definitely my port because I recognised the superior graphics! What spooked me was that Maggie Philbin's voiceover stopped for five or ten seconds while they showed the StarRay clip, and then picked up afterwards, as if nothing had happened.

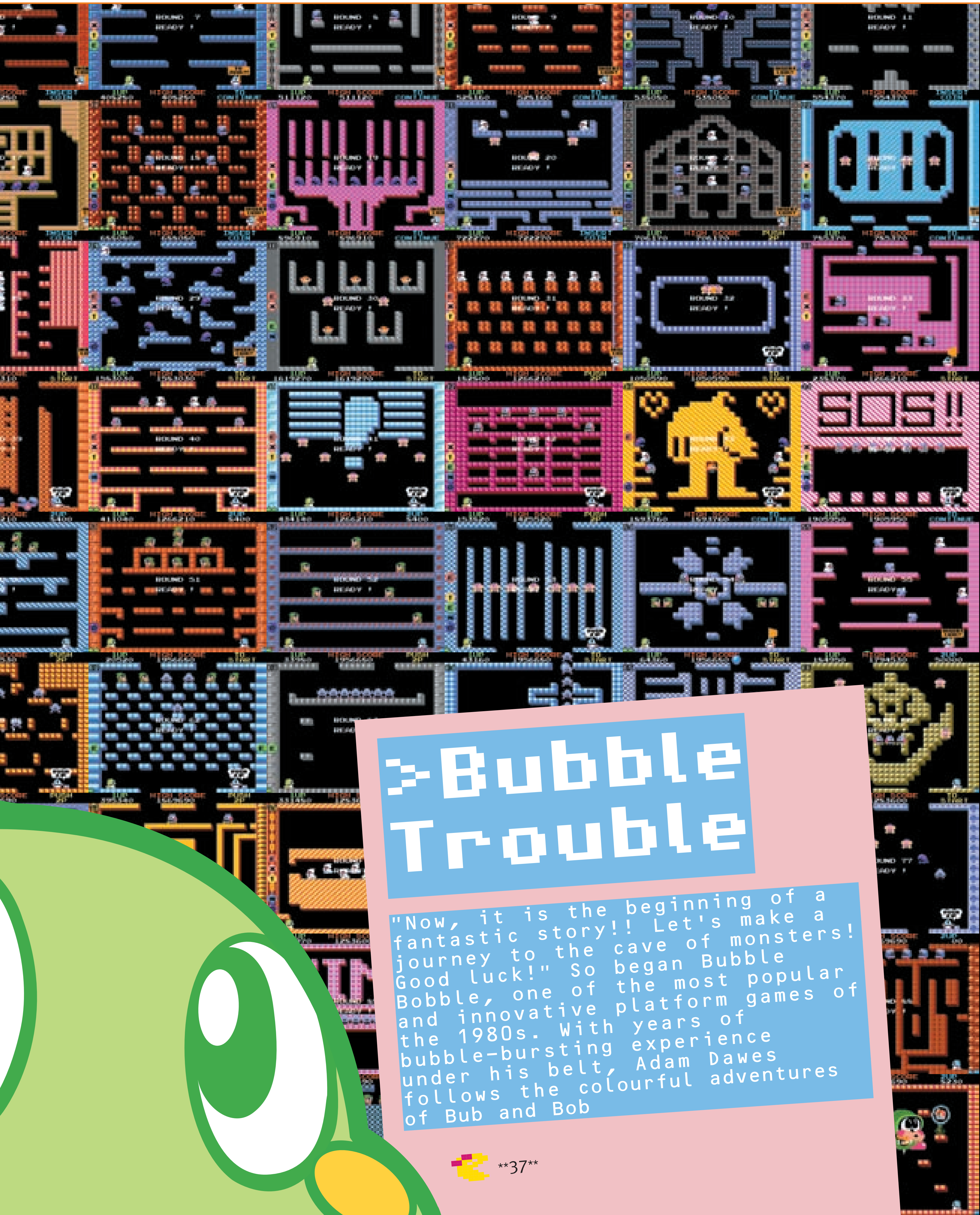
"It's a shame that the Multi System failed because Holloway was a larger-than-life character. The Konix name (as a joystick manufacturer) was well known and well respected by gamers in the UK at the time. The organisation, developer tools and software support were excellent, and with the initial round of games coming from big players, the confidence and enthusiasm from developers should have led to the UK setting new standards in console entertainment. But of course, that's not what happened."

Pollock is grateful for his involvement with the project because it opened up new career opportunities: "After the Konix Project I had some newly acquired x86 skills, and a PC, so naturally I moved into developing PC games. As a postscript to my involvement in the Multi System story, I recall that sometime after the Multi System disappeared, some ex-Multi System engineers approached me in search of a programmer and working dev-kits with a move to China in mind. That must have been in 1992, but my son's birth was imminent so I declined, though I always wondered what their plans were..."



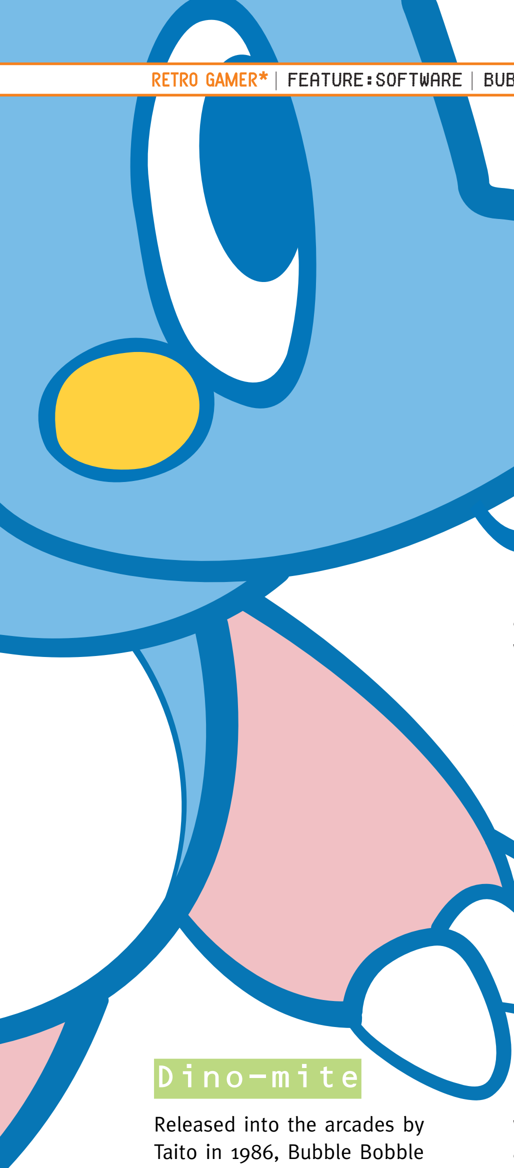
The StarRay video footage on the coverdisc features a jungle level and an arctic level


RUN
AWAY!!



>Bubble Trouble

"Now, it is the beginning of a fantastic story!! Let's make a journey to the cave of monsters! Good luck!" So began Bubble Bobble, one of the most popular and innovative platform games of the 1980s. With years of bubble-bursting experience under his belt, Adam Dawes follows the colourful adventures of Bub and Bob



Dino-mite

Released into the arcades by Taito in 1986, Bubble Bobble follows the normal everyday story of Bub and Bob, two kids who've been transformed into bubble-blowing brontosauruses. They are faced with the task of battling through 100 monster-filled screens in an attempt to rescue their girlfriends, who have been kidnapped by the evil Baron von Blubba.

A bizarre backstory, but fortunately the game plays better than it sounds. The basic objective is to blow bubbles at the various enemies so that they become trapped inside. Once they are captured, the bubbles can be burst by jumping into them or touching them with Bub or Bob's horns or fins. This sends the stunned monster flying around the screen, eventually to become a piece of fruit. Yum.

The non-scrolling, full-screen levels are made of platforms that were usually arranged into patterns or pictures. Early rounds feature simple designs so that clearing the enemies is straightforward. As the game progresses though, the levels become much more devious. It's not uncommon to see people completely stuck on some rounds, unable to figure out how to clear them. If you take too long the evil Baron will appear and slowly but surely home-in on your position, eager to take one of your valuable lives.

Each round offers up two bonuses at predefined locations: a 'fruit' bonus (simply some extra points) and a 'weapon' bonus. The weapons are diverse and numerous, ranging from power-ups (such as sweets which increase the player's speed or bubble-power) to magical potions (which fill the screen with flowers or rainbows for the player to collect within a time limit) and many others in-between. There are plenty of additional features to make the game more exciting: you can jump on the bubbles to reach otherwise inaccessible places; some of the bubbles contain elemental weapons such as lightning or fire; and special 'letter' bubbles can be collected to spell the word EXTEND, which clears the current round and earns you an extra life.

Bubble Bobble is a lot of fun as a single-player experience, but the real appeal of the game is without doubt the two-player mode, allowing for some excellent co-operative fun if you've a friend nearby. In fact, you need to be in two-player mode to access certain aspects of the game – but more on that later. It's not all about working together either, as there are ample opportunities to steal items from beneath the nose of another player. Watching a mate get irate over a purple lollipop is always entertaining.

Top tips

It doesn't take long to figure out that there are some tricks and techniques to help you increase your score. For example, when multiple enemy bubbles are burst in a group, the points awarded increase exponentially. Popping all seven bad guys (the most that ever appear in a single round) at once yields 64,000 points – much better than the 1,000 you get for bursting each individual enemy bubble.

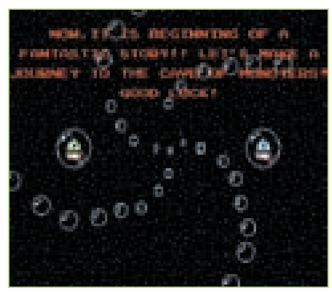
But there's more to racking up points than that. In a clever piece of design, nearly everything that happens in the game can be controlled, despite its random appearance. In fact there's only one thing in the game that is controlled by a random number generator (the appearance of the 'fireball' bubble). Everything else is based on player actions.

One excellent example of this is the feature that sometimes turns all the bubbles on the screen into fruit when the final enemy is killed. This happens for obvious reasons on occasion – most rounds that are divisible by five will automatically do this, and the 'candy cane' and 'treasure chest' bonuses cause it to happen too. But sometimes the bubbles turn to fruit in other rounds. Is this random? No – it's controlled by the players' scores. If the values in the tens and hundreds digits of your score are the same (such as 32,110 or 106,770) when the last enemy is killed, the bubbles will always turn into fruit. Each time a bubble is burst, the player scores 10 points, so this is usually easy to set up by blowing bubbles directly at a wall. Any other bubbles burst alongside the enemies will be added to your score, so they must be taken into account, but if two people are playing together, one can set up the required score while the other bursts the bubbles.

This trick can lead to some high scores, especially if used repeatedly throughout the game.











It may look cute and colourful, but Bubble Bobble has been known to reduce grown men to tears







The three treasure rooms which can be accessed from rounds 20, 30 and 40 – providing you don't lose a life

If you play it right you should be able to score over 60,000 points by the end of round two.

Another of the game's secrets you may not be familiar with are the treasure rooms. If one of the players manages to survive to round 20 without losing any lives, a silver door will appear instead of the usual round 20 bonus item. Jumping into this door will transport the player to a treasure room packed with diamonds and with a coded message written on the wall. Further treasure-room doors appear at rounds 30 and 40, but it grows increasingly difficult to reach these without losing a life. The final secret door appears at round 50, which instead of leading to a treasure room, warps the player forward by 20 screens, ever closer to the showdown at round 100.

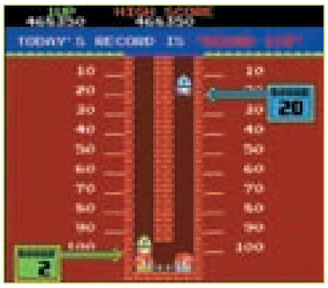
There's fun to be had on the high-score table too. Entering various names will cause unusual things to happen in the next game. For example, enter 'SEX' as your name and the round one bonus in the next game will be a fork. Collect this and fruit falls from the sky, turning the enemies into diamonds. Similar effects are to be had entering names of 'I.F', 'KIM' and "…", as well as several others.

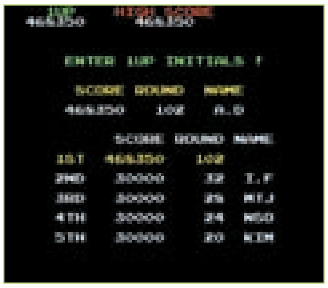
Dirty cheat

Cheats? In an arcade game? That's a bit unusual isn't it? Well perhaps it is, but there are two cheats built into the game that make it easier to play. These are activated from the title page when the main Bubble Bobble logo is displayed, before any money is inserted.

The first cheat gives the player the shoe bonus (fast movement) and the blue and yellow sweets (rapid fire and fast-moving bubbles) at all times. This makes the game much easier to play. To activate this cheat, press the following key sequence: left, jump, left, one player start, left, fire, left, one player start. The message 'Power Up!' will appear at the bottom of the screen if this has worked.

The second cheat gives access to all the treasure rooms and the level warp on round 50, even if you've lost a life. To enter this, wait for the logo to come around again and enter the following key sequence: fire, jump, fire, jump, fire, jump, right, one player start. The message 'Original Game' will appear. Both cheats can be activated at the same time in





Round 102? This glitch fooled many people into thinking there were additional secret rounds

>Homeward bound

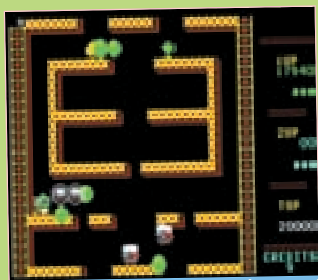
Following its success in the arcades, Bubble Bobble was converted to a wide range of computer and console formats. These include the Spectrum, Commodore 64, Amiga, Atari ST, PC, GameBoy, MSX, NES, Master System, Saturn and PlayStation. It won't come as a surprise to find that the quality of these conversions varied significantly, and few of them came close to the arcade original.

The first thing that suffered in many of these versions was the graphics. The Spectrum version was a good effort with all the characters recognisable, even if they were monochrome. The C64 version, on the other hand, looked like the characters were all feeling a little unwell. The console versions tended to look a lot better than the 8-bit computer versions. However, considering the number of objects required to move on-screen at once (there can be dozens of bubbles floating around at any time), the home computer versions deserve a fair amount of credit.

Special mention should also be made of the original B&W GameBoy version. This ambitious attempt was let down slightly by flickery graphics, but much more by the fact that the levels didn't fit in the tiny display. This resulted in scrolling levels, which made it harder to work out where (or on what!) you were about to land.

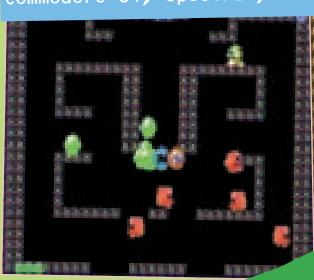
Perhaps the best conversion was for the Master System. Not only did it look and sound close to the real thing, but most of the more subtle game features survived intact as well. Many of the secrets and obscure features of the arcade sadly didn't make it into the conversions though, and for the Bubble Bobble purist this is one of the things that makes them keep coming back to the arcade original.

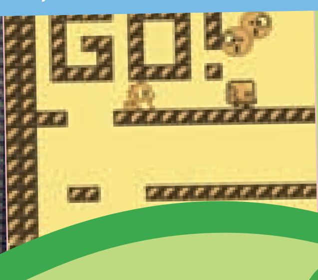
There have also been several official Bubble Bobble releases over the last few years. The game was converted to many of the more recent consoles including the Sega Saturn and Sony PlayStation (sharing the bill with its sequel, Rainbow Islands). A version was also produced for the GameBoy Advance, this time using the larger-sized screen to fit the whole level on the display without having to scroll. The most recent official version was part of the Taito Memories pack released for the Nokia N-Gage. Bubble Bobble was included alongside new versions of Super Space Invaders and Qix. Amusingly, Taito announced a few years back that it had lost the source code for the arcade version of Bubble Bobble. All of the recent versions were based on disassembly of the arcade ROM!

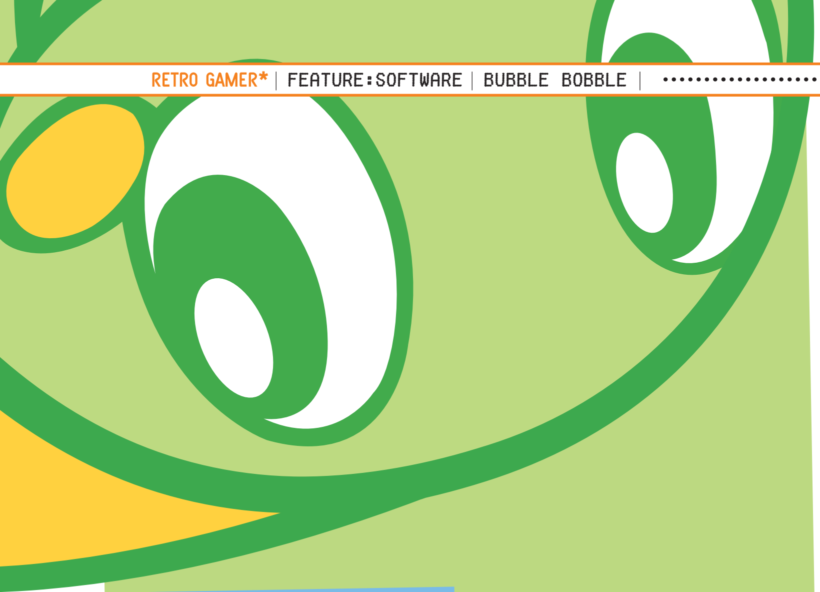




The various home versions. Clockwise from top left: Commodore 64, Spectrum, GameBoy and Master System







this way (wait for the title screen to come around again to activate the second cheat).

These cheats were like gold dust in the mid-80s, a time before the Web existed, and were jealously guarded secrets in playgrounds the world over. One of these cheats led to a long-standing rumour about some mysterious extra screens – rounds 101 and 102. The reason for this is that the 'Original Game' cheat makes it possible to lose your last life in a treasure room (normally this couldn't happen as you would have to be on your first life to access it). The treasure room was stored as room 102 in the game, and this would then appear on the 'Today's Record' screen, misleading anyone who later spotted it.

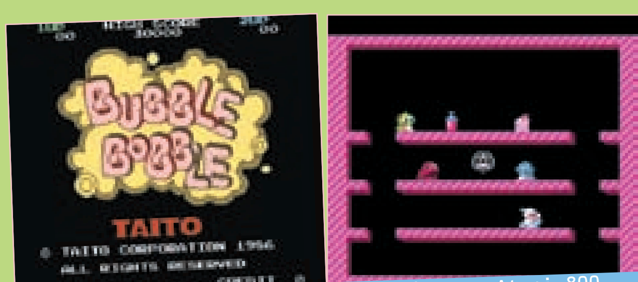
Room 101 does exist too, but it's the room used in the attract mode to explain how to play. Both of these levels can be accessed by playing the game using the MAME emulator and entering a cheat code to set the starting level. There are no 'real' additional levels to be found, though.

>Fan remakes

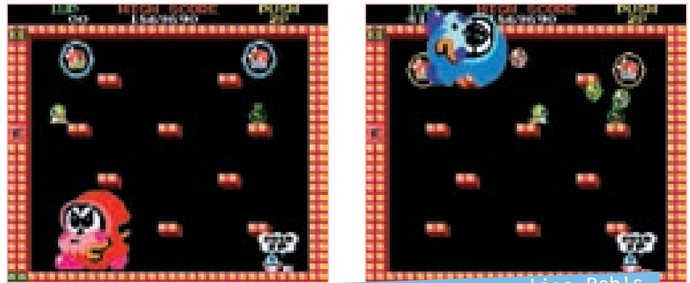
There have been many remakes of the game, usually including new levels and updated graphics (and unfortunately, usually with a price-tag attached because the majority of them are shareware). One of the better known of these is Bubble Bobble Nostalgie (**www.alawar.com**). This version features colourful graphics, and new and familiar levels.

A whole range of similar variations of the game is available from **www.bubble-bobble-games.com**, although many of these appear to be the same game engine with different levels and graphics. Bringing the game into the Internet era is The Bub's Brothers (**http://bub-n-bros.sourceforge.net**). This is a multiplayer version of the game with a maximum of 10 players at once – sounds like mayhem!

And finally, perhaps the most unusual remake currently in development is a new version for the Atari 800. More details can be found at **www.atariage.com/forums/viewtopic.php?t=52701**.



Work-in-progress screenshots from the new Atari 800 homebrew version of the game



The celebrations are short-lived as you realise Bob's girlfriend is still trapped!

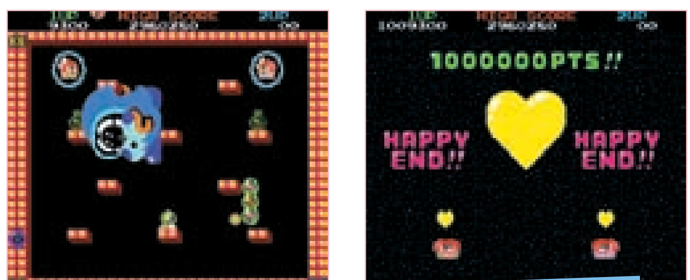


Happy ending?

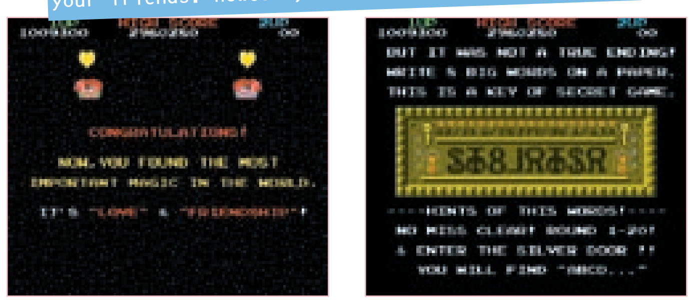
Finishing the game should be straightforward enough – clear round 100, right? Well, there happens to be a few different endings to this game.

If you clear round 100 in one-player mode, you'll be told that you didn't reach the 'true ending', and are warped back to a level somewhere between 50 and 80 to have another go. This is rather good as it means the game can be played forever (or until you finally run out of lives). A single credit can last a long time if you get enough practice.

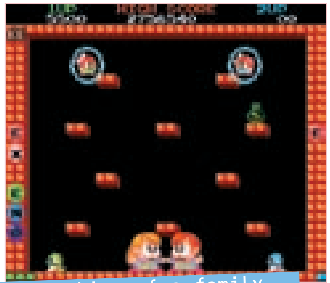
Clearing the game with two players alive at the end will display the 'happy ending'. Bub and Bob meet up with their girlfriends and presumably live happily ever after. But this is soon shown not to be the 'true ending'. A message appears (in rather confusing Engrish) telling you to "write 8 big words on a paper". After figuring out what the game is trying to tell you, yet another secret code is revealed. Once this has been tapped in at the title screen, the game enters 'Super Bubble Bobble' mode, with a slightly different title-screen logo. Playing is now more difficult as all the enemies have swapped around. Finishing the game in this mode with both players alive finally reveals the 'true ending' to the game, in which Bub and Bob's parents are also saved. Phew – everyone can live happily ever after, or at least until the "fantastic story" continues in Rainbow Islands... RG*



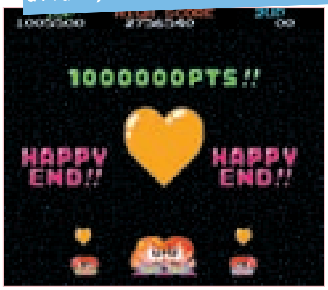
It's true that you get by with a little help from your friends. However, it's not the 'true ending'

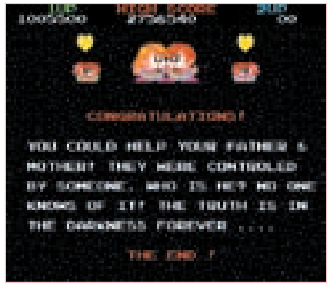






The third and final ending is something of a family affair, with Bub and Bob's parents rescued





>Forever blowing bubbles

Such is the popularity of Bubble Bobble, the characters from the game have appeared in a series of arcade releases. Here's a rundown of them all:

Chack'n Pop (1983)



A rather bizarre platform game. This doesn't feature Bub or Bob, but several of the other monsters from Bubble Bobble do appear. It's also worth noting that the little yellow Chack'n character pops up in Bubble Bobble several times, and even has a level designed around him (round 43).

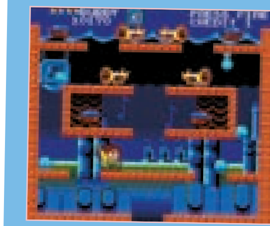
Rainbow Islands (1987)



Bub and Bob return, in human form this time, in this vertically scrolling platform classic. Sub-titled 'The Story of Bubble Bobble 2', Rainbow: Island is full of the cute touches that have become a hallmark of the series. Bub and Bob can create rainbows, which they climb across or knock onto the heads of their enemies to kill them. The game is split over a number of islands, one of which (Bubble Island) features all the bad guys (and some of the levels) from the original.

Parasol Stars (1992)

Sub-titled either 'The Story of Rainbow Islands II' or 'The Story of Bubble Bobble III', the next instalment was conceived by Taito as an arcade game, but ultimately only appeared on home computers and consoles courtesy of Ocean Software.
This time Bub and Bob (still in human form) are armed with



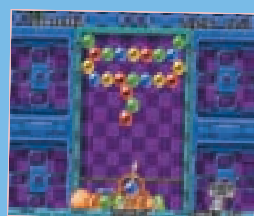
umbrellas with which they can attack their opponents. They can also capture enemies or bubbles (containing fire, water or lightning) on the tops of their parasols, which can then be fired at the bad guys for extra points.

Bubble Symphony (1994)



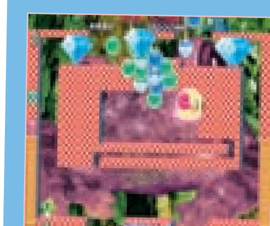
A welcome return to the original game formula, but with a more modern feel. A selection of playable characters with different skills, branching level structures and (thank goodness) a continue option feature, yet this looks and feels similar to the original game. This time we see Bub and Bob's four children – Little Bubby, Little Bobby, Kululun and Cororon – transformed into bubble-blowing dragons by the bad guys in revenge for their parents' actions in the original game.

Puzzle Bobble (1994)



In what must be one of the most copied games ever created, Bub and Bob leave the platform world for a fun and original puzzle game. In Puzzle Bobble (aka Bust-a-Move), bubbles must be fired into a playfield to form groups of three or more of the same coloured bubble, at which point they disappear. Simple and highly addictive! The bubbles contain creatures from the original Bubble Bobble; Bub and Bob do little more than aim the bubble machines, however. Puzzle Bobble spawned an entire series of games in its own right, each one building on the previous games. The basic formula is still unchanged from this version.

Bubble Memories (1995)



The last of the platform games in the series, and confusingly sub-titled 'The Story of Bubble Bobble III', this plays like Bubble Bobble on steroids! The same gameplay is present as the original, but this time huge bubbles can be blown, into which multiple enemies can be captured at once – just as well because there are some huge enemies now! Instead of working downwards, the game progresses upwards to the top of the Rainbow Tower, and boss enemies appear every few levels along the way. 160 rounds of chaos separate you from victory.



eMag

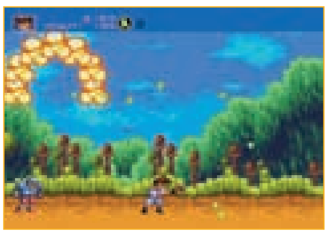
>Treasure Trove

There are few companies in the modern development arena as enigmatic as Treasure, darling of the hardcore and preserver of 2D game design. Treasure is a small, humble outfit that somehow manages to craft classic title after classic title. Jonti Davies searches for the finest gems in Treasure's valuable trove and talks to its President, Masato Maegawa









Maegawa-san founded Treasure Inc. in Tokyo in the summer of 1992. The team is made up of ex-Konami coders whose first games outside Konami included Gunstar Heroes and Alien Soldier – 2D action platformers for Sega's Megadrive that were charged to the maximum with frenetic gameplay.

Prior to their exodus from Konami, the coders worked on many important Famicom, Super Famicom and GameBoy releases. The Simpsons arcade game of 1991 was partly developed by soon-to-be Treasure employees. Then there's Contra III: The Alien Wars, another excellent Konami title that was largely developed by the staff that would go on to establish Treasure. Classic Super Famicom shoot-em-up Axelay is yet another example of the Treasure founders' discipline. Little wonder, then, that Treasure would quickly become renowned for action-packed gameplay and explosive adventures.

Little treasures

Treasure has never really viewed sales as much of a concern. Which is just as well because Treasure has been producing games for more than a decade, yet in all that time it has never had a major hit. Five-digit sales figures are par for Treasure's course. This is all the more remarkable when you consider the acclaim with which many of Treasure's games have been met. The company's output is, as a rule, critically acclaimed yet commercially unsuccessful.

So, which of these majestic flops are most worthy of your currency? Come with us as we browse through the library of Treasure titles, picking out the classics. Track down these games and make them a part of your collection – every last one listed here is a sparkling gem.

Gunstar Heroes

Megadrive, 1994

One of the crème de la crème, Gunstar Heroes sees colour-coded lead characters – agents Red, Blue and Green – speed through stages full of shooting and fighting. Technically speaking, this is one of the most impressive Megadrive games ever released. Even now, it looks awesome.

At the time of Gunstar's release, Paul Davies was Staff Writer on Mean Machines Sega and Nintendo Magazine System (he went on to become Editor of C&VG). He's one of the game's most noted fans, so we asked him why Gunstar Heroes had such an impact on him. He explains: "Practically every step of the way in this game you were seeing things you didn't think the Megadrive was capable of. Even the title screen that rotated, and the music behind it was amazing. The game was so fast paced and 'in your face' – always lots of enemy soldiers scurrying around the screen, meaning you needed to keep firing. And, as you blasted about the place, the way stuff exploded was so satisfying – like instant fireworks. The sound effects, perhaps for the first and last time, were made better by the MD's scratchy sound chip.

"Of course, any Gunstar Heroes fan will tell you that the game rocked because it was constantly so inventive: from the boss known as Seven Force, who morphed between forms in a breathless chase through a mine, to the giant dice-throwing episode that decided which area you'd land in next. Just going back to the mine chase, I really liked the way you could sort of float between hanging upside down at the top of the screen or racing along at the bottom of the screen with a sort of double-jump technique.

"The main hero characters Red and Blue were sort of up against their brainwashed brother Green, as far as I remember, and there was an incredible scene near the end of the game where Green refused to fight you – holding up his hand, absorbing all the bullets. Some deep meaning in there that I can't remember, but at the time it felt more emotional than anything in Metal Gear...

>Maegawa-san speaks

Treasure boasts a string of videogame pearls that features Guardian Heroes, Radiant Silvergun, Ikaruga and the recent Gradius V. We spoke to Masato Maegawa, founder and President of Treasure Inc., to find out what sort of environment spawned these and other classics.

RG: When was Treasure founded? And what led to its establishment?

Maegawa-san: [Before Treasure] I worked at Konami developing game software for the GameBoy, Famicom and Super Famicom. We founded Treasure on 19 June 1992. We started the company so that we could freely create games that we, ourselves, found interesting. We weren't so much concerned with sales.

RG: So what was Treasure like when you first founded it?

Maegawa-san: The entire company consisted of a little over 10 people and just two teams, so we developed under an at-home kind of atmosphere. A team consisted of two designers, two programmers, and two sound people.

RG: What was the ambience like in those early days?

Maegawa-san: From the company's founding, everyone was focused on development and circumstances weren't quite as hard as they are now. In a way, we worked at a relaxed pace.

RG: Do you think that smaller teams are better, or are larger ones preferable?

Maegawa-san: I think that with smaller teams, the developers' personalities are expressed more, and it's easier to make games with clear concepts.

However, recently there are many games that cannot be made without

Dynamite Headdy



"I suppose you could say Gunstar Heroes was the pinnacle of 16-bit action games – terrific characters brought to life with the dazzling and ultra-stylistic visuals, backed by a rousing and equally brilliant soundtrack. It had fun with daft ideas that people can't be bothered trying to get their heads around these days and was held together by a versatile but super-tight, kick-ass control method.

"Gunstar was Treasure at the height of its character-oriented games – before settling in to Radiant Silvergun and thereafter."

Dynamite Headdy

Megadrive/Game Gear/Master System, 1994

Treasure's next game, Dynamite Headdy, was in stark contrast to Gunstar Heroes and indeed many of the other games in the developer's catalogue. In Dynamite Headdy a limbless hero slides and jumps through pastel-coloured worlds of simple platforming fun. The game isn't a celebration of Treasure's usual charms, but it is a strangely enjoyable platformer and is drawn with a wacky sense of style. Oh, and there's a Game Gear version!

Yu Yu Hakusho: Makyo Toitsusen

Megadrive, 1994

The manga series Yu Yu Hakusho forms the basis of Treasure's first fighting game, Makyo Toitsusen. This one-on-one anime-styled beat-em-up was, unsurprisingly, a Japan-only release. And it's very rare. It's probably the best Yu Yu Hakusho game out there, taking manga's gang of heroes through a series of fights that are rendered perfectly by Treasure's typically meticulous coterie of artists. (Five years later, Rakugaki Showtime would take the team's fighting formula to the next level.)

Alien Soldier

Megadrive, 1995

Whereas Gunstar Heroes was vividly colourful like a cartoon, Alien Soldier took the same concept – explosive character- and platform-based shooting – and dressed it up in dark action-movie visuals. The similarities between the two titles don't end there, as two of Gunstar Heroes' most

Yu Yu Hakusho





Alien Soldier



a large number of people, so [team size] must be considered on a case-by-case basis.

RG: How has your role at Treasure changed over the years?

Maegawa-san: When I first founded the company, I was a programmer. Now, I'm in the position of producer for all projects, so management has become my main work.

RG: What is your personal approach to developing games?

Maegawa-san: My approach is that games should be simple, clear and fun.

RG: What sort of games do others at Treasure enjoy? Strictly action games?

Maegawa-san: The games the staff like vary. We're not particularly obsessed with action games – we play a variety of games.

RG: After Treasure's first title was completed, what did you envisage as the company's future?

Maegawa-san: When Gunstar Heroes got highly acclaimed, I felt that we should continue along those same lines.

RG: Were you or your fellow employees surprised by the acclaim you received from the specialist press? How did your popularity make you feel?

Maegawa-san: The high acclaim we've gotten from the press and our users has been our biggest motivation.

RG: So how does Treasure's operation differ from that of other developers?

Maegawa-san: The difference is that the [project] leaders may make the original draft of the project plan, but basically the entire staff thinks up the game, plans it and creates it. As a result, there's no one at Treasure who just does planning. They're planner programmers or planner designers.

RG: Have you seen Treasure change in any way during the time you've worked there? Or do the same atmosphere and work ethics that you had in the beginning still exist?

Maegawa-san: The basic ethic of having freedom to make games that we ourselves find fun hasn't changed at all. But, due to the increase in people, I think interpretations of 'freedom' and 'fun' are diversifying.

RG: Do you operate more efficiently now than in years gone by?

Maegawa-san: On the contrary, I think that with the advance in hardware, the process of making really pure games has become less efficient.

RG: So what does a typical working day now involve?

Maegawa-san: I supervise all projects and handle negotiations with various companies. The biggest part of my work is finding the most appropriate projects for the teams and negotiating with the publishers.

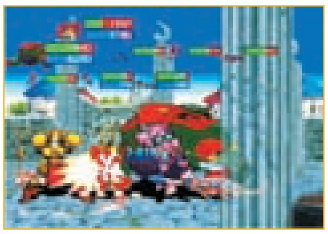
RG: And the future?

Maegawa-san: I hope that I can continue to be in a company where I can make games that I think are truly fun.

impressive boss characters reappear in Alien Soldier, specifically Paul Davies' old fave Seven Force and the crazily named Melon Bread.

By 1995, traditional action games rarely offered less than five degrees of difficulty level. In a brash show of non-conformity however, Treasure decided to offer Alien Soldier's players just two alternatives: SuperEasy and SuperHard! And yes, those are apposite descriptions. Particularly disarming in SuperHard mode is the limited amount of time given to complete each area. The 8- and 16-bit Super Mario games limited level time to 300 seconds or so, but rarely did that threaten your level-completion objective; in Alien Soldier's SuperHard setting, on the other hand, time is at a premium. Treasure's masterful way of creating tension is particularly evident here. Energy depletes, enemies advance, time races. Alien Soldier rocks!

Guardian Heroes



Yuke! Yuke! Troublemakers



Silhouette Mirage



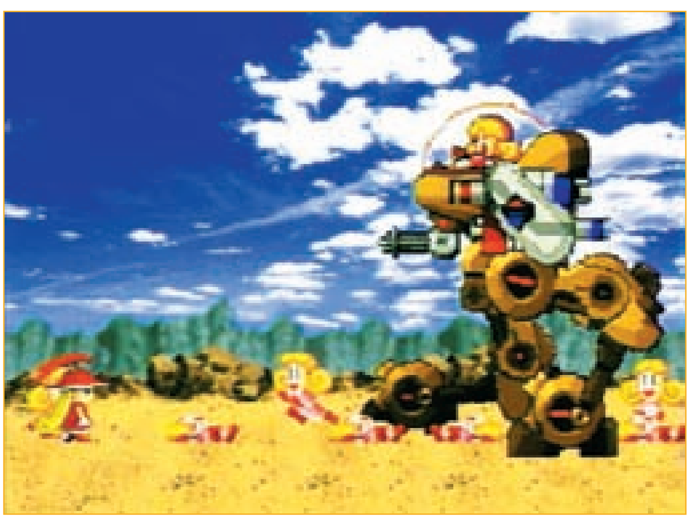
Guardian Heroes

Saturn, 1996

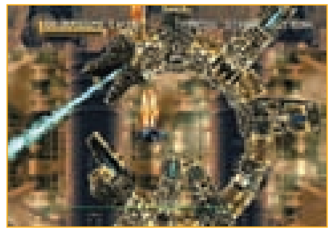
Treasure games aren't usually multiplayer friendly – two-player co-op is normal in the company's shooters, of course, but over and above that there lies little in the way of party-gaming potential. The exceptions are Guardian Heroes, an inspired six-player brawl, and 1999's four-player Rakugaki Showtime.

Guardian Heroes' main game is a side-scrolling beat-em-up in which one or two players must work through a branching kingdom that looks like something by Uderzo and, in a departure from Treasure's norm, negotiate reams of story text and dialogue. It plays fantastically well, giving an early insight into the possibilities of so-called 2.5D gameplay with its background/foreground-action combo.

With multitap inserted, Guardian Heroes takes on a whole new persona – that of a six-player free-for-all beat-em-up that puts tag-team Capcom fighters to shame. It's a truly awesome game and it's not even particularly rare. A great starting point then, if you want to sample Treasure's delights. A GameBoy Advance port is in the pipeline too.



Radiant Silvergun



Yuke! Yuke! Troublemakers

Nintendo 64, 1997

Picking up where Dynamite Headdy left off, Yuke! Yuke! Troublemakers is a platforming spectacular with a unique charm. As with many Treasure titles, its left-of-centre pitch can put some players off. However, those who can see past its retrograde and downright weird looks will find a gem of a game.

Silhouette Mirage

Saturn/PlayStation, 1997/8

Like Gunstar Heroes before it and Ikaruga some years later, Silhouette Mirage relies heavily on a system of colour contrasts. The main character here has a split personality of sorts: half red, half blue (half silhouette, half mirage), and she only has access to red/blue exclusive powers depending on which way she is facing. So, unlike most 2D platformers in which the idea is simply to progress from left to right and rarely backtracking, Silhouette Mirage encourages tactical use of direction. Progress is threatened not only by a game-long succession of baddies, but also by puzzling scenarios that are at times so head-scratchingly difficult that they recall the equally challenging design of Nintendo's SNES classic, Yoshi's Island. Avoid the duff Western conversion – plump for either of the Japanese versions and all will be fine.

Radiant Silvergun

Arcade/Saturn, 1998

Treasure's first straight-up shoot-em-up revives the strong characterisation found in Gunstar Heroes, offering a Gunbird-like sensation of controlling a heavily armed character, as opposed to an empty sprite of ship hull. Bearing in mind that this was Treasure's genre debut, Radiant Silvergun is astonishingly fresh. It is almost revolutionary, as it turns the whole genre upside down with a unique power-up system that doesn't depend on picking up items. Instead, Treasure hands out all the weapons (there are six of the laser variety) at the outset and challenges the player to survive onslaught after onslaught, enemy wave after enemy wave, all the while charging those default weapons to new levels of explosive power. It's an ingenious setup.

As with so many ST-V-to-Saturn conversions, Silvergun proves how exceptionally powerful the Saturn hardware is (on a 2D level, at least). And like so many other Treasure titles, it shows that a clear and simple style of gameplay will always be the most enjoyable.

This is 'The Biggie' – it's the Japan-only Saturn release that reached a value in the three-figure realm soon after its release, and that many swear is the greatest 2D shoot-em-up ever made. Radiant Silvergun is undeniably a great game and a crusade against all that can be blown up. It plays like no other shoot-em-up in existence, and for that reason it's essential.

RakugakiShowtime



Rakugaki Showtime

PlayStation, 1999

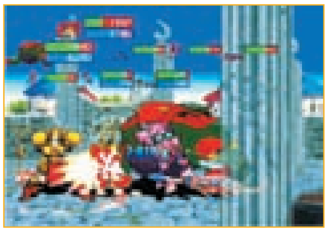
Rakugaki Showtime is one of the rarest Treasure titles around (it is much rarer than Radiant Silvergun). It was only released in Japan, in limited quantities, and – here's the crunch – many copies were removed from the shelves after a lawsuit (involving whom no one can or will say) necessitated that it be recalled from retail. Don't be reluctant to part with £100 if you ever see a copy – Rakugaki Showtime is virtually a museum piece.

Despite the fact that this extremely rare title was only released in the Japanese market, its gameplay has all the hallmarks of a would-be international hit. Rakugaki Showtime is a Penny

impressive boss characters reappear in Alien Soldier, specifically Paul Davies' old fave Seven Force and the crazily named Melon Bread.

By 1995, traditional action games rarely offered less than five degrees of difficulty level. In a brash show of non-conformity however, Treasure decided to offer Alien Soldier's players just two alternatives: SuperEasy and SuperHard! And yes, those are apposite descriptions. Particularly disarming in SuperHard mode is the limited amount of time given to complete each area. The 8- and 16-bit Super Mario games limited level time to 300 seconds or so, but rarely did that threaten your level-completion objective; in Alien Soldier's SuperHard setting, on the other hand, time is at a premium. Treasure's masterful way of creating tension is particularly evident here. Energy depletes, enemies advance, time races. Alien Soldier rocks!

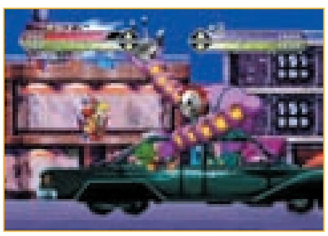
Guardian Heroes



Yuke! Yuke! Troublemakers



Silhouette Mirage



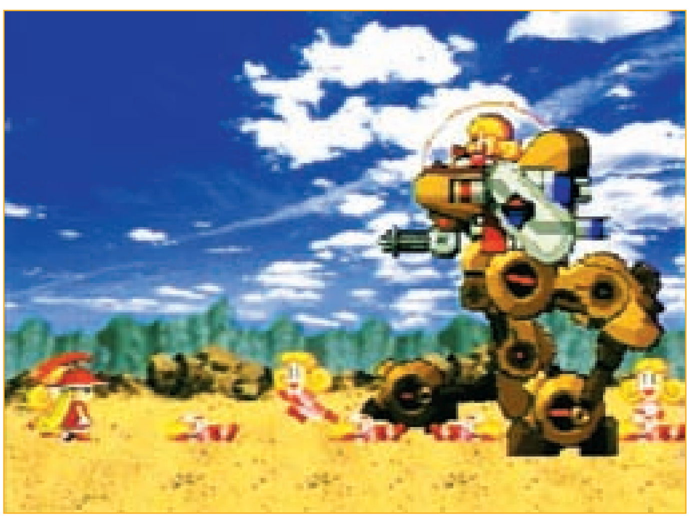
Guardian Heroes

Saturn, 1996

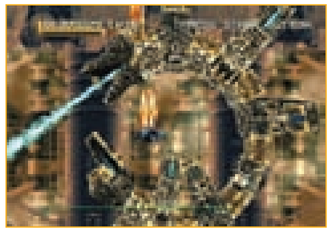
Treasure games aren't usually multiplayer friendly – two-player co-op is normal in the company's shooters, of course, but over and above that there lies little in the way of party-gaming potential. The exceptions are Guardian Heroes, an inspired six-player brawl, and 1999's four-player Rakugaki Showtime.

Guardian Heroes' main game is a side-scrolling beat-em-up in which one or two players must work through a branching kingdom that looks like something by Uderzo and, in a departure from Treasure's norm, negotiate reams of story text and dialogue. It plays fantastically well, giving an early insight into the possibilities of so-called 2.5D gameplay with its background/ foreground-action combo.

With multitap inserted, Guardian Heroes takes on a whole new persona – that of a six-player free-for-all beat-em-up that puts tag-team Capcom fighters to shame. It's a truly awesome game and it's not even particularly rare. A great starting point then, if you want to sample Treasure's delights. A GameBoy Advance port is in the pipeline too.



Radiant Silvergun



Yuke! Yuke! Troublemakers

Nintendo 64, 1997

Picking up where Dynamite Headdy left off, Yuke! Yuke! Troublemakers is a platforming spectacular with a unique charm. As with many Treasure titles, its left-of-centre pitch can put some players off. However, those who can see past its retrograde and downright weird looks will find a gem of a game.

Silhouette Mirage

Saturn/PlayStation, 1997/8

Like Gunstar Heroes before it and Ikaruga some years later, Silhouette Mirage relies heavily on a system of colour contrasts. The main character here has a split personality of sorts: half red, half blue (half silhouette, half mirage), and she only has access to red/blue exclusive powers depending on which way she is facing. So, unlike most 2D platformers in which the idea is simply to progress from left to right and rarely backtracking, Silhouette Mirage encourages tactical use of direction. Progress is threatened not only by a game-long succession of baddies, but also by puzzling scenarios that are at times so head-scratchingly difficult that they recall the equally challenging design of Nintendo's SNES classic, Yoshi's Island. Avoid the duff Western conversion – plump for either of the Japanese versions and all will be fine.

Radiant Silvergun

Arcade/Saturn, 1998

Treasure's first straight-up shoot-em-up revives the strong characterisation found in Gunstar Heroes, offering a Gunbird-like sensation of controlling a heavily armed character, as opposed to an empty sprite of ship hull. Bearing in mind that this was Treasure's genre debut, Radiant Silvergun is astonishingly fresh. It is almost revolutionary, as it turns the whole genre upside down with a unique power-up system that doesn't depend on picking up items. Instead, Treasure hands out all the weapons (there are six of the laser variety) at the outset and challenges the player to survive onslaught after onslaught, enemy wave after enemy wave, all the while charging those default weapons to new levels of explosive power. It's an ingenious setup.

As with so many ST-V-to-Saturn conversions, Silvergun proves how exceptionally powerful the Saturn hardware is (on a 2D level, at least). And like so many other Treasure titles, it shows that a clear and simple style of gameplay will always be the most enjoyable.

This is 'The Biggie' – it's the Japan-only Saturn release that reached a value in the three-figure realm soon after its release, and that many swear is the greatest 2D shoot-em-up ever made. Radiant Silvergun is undeniably a great game and a crusade against all that can be blown up. It plays like no other shoot-em-up in existence, and for that reason it's essential.

RakugakiShowtime



Rakugaki Showtime

PlayStation, 1999

Rakugaki Showtime is one of the rarest Treasure titles around (it is much rarer than Radiant Silvergun). It was only released in Japan, in limited quantities, and – here's the crunch – many copies were removed from the shelves after a lawsuit (involving whom no one can or will say) necessitated that it be recalled from retail. Don't be reluctant to part with £100 if you ever see a copy – Rakugaki Showtime is virtually a museum piece.

Despite the fact that this extremely rare title was only released in the Japanese market, its gameplay has all the hallmarks of a would-be international hit. Rakugaki Showtime is a Penny



>Desert Island Disks

This month's castaway is Archer Maclean, the famed British coder who's spent over 20 successful years in the games industry. Paul Drury gets up close and personal



>WHO?

Archer Maclean, author of Dropzone and Jimmy White's Snooker, amongst numerous others games. He's also an enthusiastic collector and restorer of arcade cabinets

I'm in Aladdin's Cave. No, scratch that. I'm in Aladdin's Cave, I've found the lamp, rubbed it, and used all my wishes on acquiring every arcade machine I ever drooled over as a kid. All the classics are here – Missile Command, Asteroids, Donkey Kong, Defender – lovingly restored to their erstwhile glory. I explore deeper and find the curvaceous Computer Space, an original Pong and the ultra-rare, ball-bearing-balancing beauty, Ice Cold Beer ("There's only three in the country – and two of them are here," quips Archer). Everywhere I turn, there are magnificent cabinets blinking back. Even the kitchen has that essential household appliance, a Robotron next to the fridge.

"It started with Defender in 1985, but for most of the time, I've just had half a dozen machines – Robotron, Stargate and Defender, plus another few that alternated over the years. It's only really gone mad since I moved here five years ago. I'm up to about 150 now." Any Holy Grails you're still after then? Archer smiles sheepishly, "Erm, I've got what most collectors might call the Holy Grails. Major Havoc dedicated, Aztarac, a Robotron cocktail cabinet... actually, I'm still after a Nichubutsu Crazy Climber, but I know who's got one. And Oliver, if you're reading this, I'm still interested."

Archer Maclean knows his stuff. Whether it's the location of a machine he's got his eye on (he explains that most collectors trade rather than sell, so it's all about finding out what they want and sourcing that to tempt them – he recently swapped a restored 1940s-style bubble gum machine for a broken tabletop Phoenix), or the possible cause of the bug that occurs in Missile Command if you reach the dizzy score of 810,000 (based on his knowledge of 6502 programming), he knows these games inside out. Literally. You see, he doesn't just collect and play these games, he spends hours, weeks, sometimes a whole year on restoration projects. This isn't about buffing off a few fag burns – it can mean completely gutting a machine and painstakingly recreating it from the chipboard up. Take his approach to cabinet art:

"My old perfectionist skills come into it. I scan the artwork from genuine old machines and reproduce it. I've been known to get on a plane in the States and visit collectors to scan their machines, bring the image back on my laptop and redraw everything using the original as a precise guideline. I want to replicate every star, every lump, every aspect of the original graphic and get the colours matched to be indistinguishable from the original."

We venture downstairs and Aladdin's Cave starts to resemble a bunker fully stocked in preparation for an arcade nuclear winter. There are machines in various states of renovation, marquees, control panels, monitors and a plethora of electronic bits and pieces accumulated for future maintenance and restoration work.

"My plan is to work my way back to 75 mint machines in the basement as my permanent collection. It's me paying homage to what inspired me to write games in the first place."

In the zone

Over two decades in the industry has seen Archer release International Karate, numerous snooker and pool games and Dropzone, back in 1984. It was a long gestation period for that first title, which really began when he acquired an Atari 800 in late 1979. "I drove down to Heathrow Airport to collect one – I was friendly with a guy from Silica Shop who brought them in and he said if I wanted one that desperately, I could meet him at the airport. I just sat in my room for the next three months working out all kinds of stuff – how to scroll the screen in two machine code instructions, getting a man to accelerate left and right, putting in inertia and a planetscape below. Dropzone just went from there."

Archer spent six months between 1980 and 1981 on the project (the favoured working title of which was Nemesis) and the game was half finished. It wasn't until after completing his degree course in 1983 that he spent two months tidying everything up. He'd already been approached in late 1981 by Supersoft with a view to publishing it and had been offered an advance, but despite still being a teenager, he was acutely aware of his own worth and turned the publisher down. Supersoft came back the following year with a higher offer, but Archer's ambition and emerging business sense again made him refuse. "I couldn't see how a tiny company could sell it worldwide. They'd only end up licensing it."

With typical confidence and a little youthful bravado, Archer instead took his finished game along to a PCW show. "I'd find a company that had an Atari 800 on its stand, sneak my game into the disk drive, let it run and wait till someone picked up the joystick. At one Olympia show, Atari was there showing off its Defender, which was crap – it ran at about 10 frames or something and was really jerky. I put Dropzone on next to it, running smoothly at 50 frames per second



These machines are awaiting a little care, attention and restoration

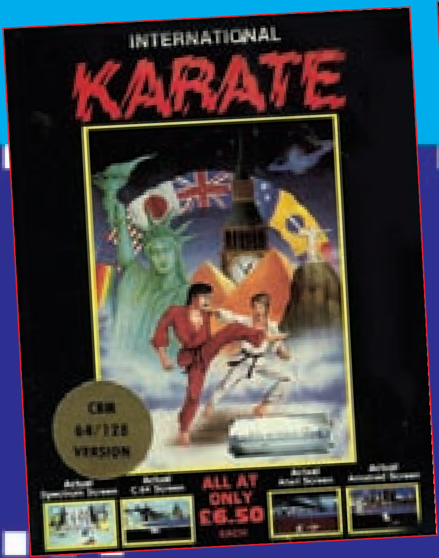


The Holy Grails. Just some of the rare machines in Archer's collection





Archer's house is packed with arcade machines. There's barely enough room in his garage for his car











The excellent International Karate and its sublime sequel, IK+

with loads of aliens all over the place, stood back 20 feet and just watched. The corridor in the show got packed – hundreds of kids crowded round it. I knew I had a hit on my hands. I was three feet off the ground."

The success of Dropzone, the game that established Archer Maclean as one of the 80s' best-known bedroom coders, is something that he's clearly very proud of (note the inclusion of a playable version of the game in his most recent project, Pool Paradise). "People didn't believe me when I said I could produce something that played like an arcade game on my Atari. What drives me on is if someone says, 'You can't do that Archer' and if I think I can, I just say, 'You watch.'"

It's perhaps appropriate then, that Dropzone did actually appear as a fully blown arcade machine, albeit as a one-off.

"An arcade owner in Luton said he could make a machine, so I went home and rewrote Dropzone to be a lot harder, plus I put in a self-play mode and attract mode – the code still exists. We put it in a Defender machine with a slightly revised control panel and I remember getting an ecstatic call from this bloke saying, 'We've made £300 this week!' I asked where my half was. He was going to do 25, but it never happened. I'd love to know where that complete machine was though. Could be in a lock-up in Luton..."

Understandably, Archer began work on Dropzone 2, which took the original's premise and added craters you could drop into and a cavern system to explore, but he was persuaded to put it to one-side to work on a Karate game, which became International Karate for the Atari and C64. This was followed by IK+, which included one particularly ingenious addition: "I came up with the three-player idea in May or June 1985. I just knew that was a winner." Archer comments that whilst he likes Soul Calibur, he detests fighting games that rely on button bashing and memorising lengthy combos.

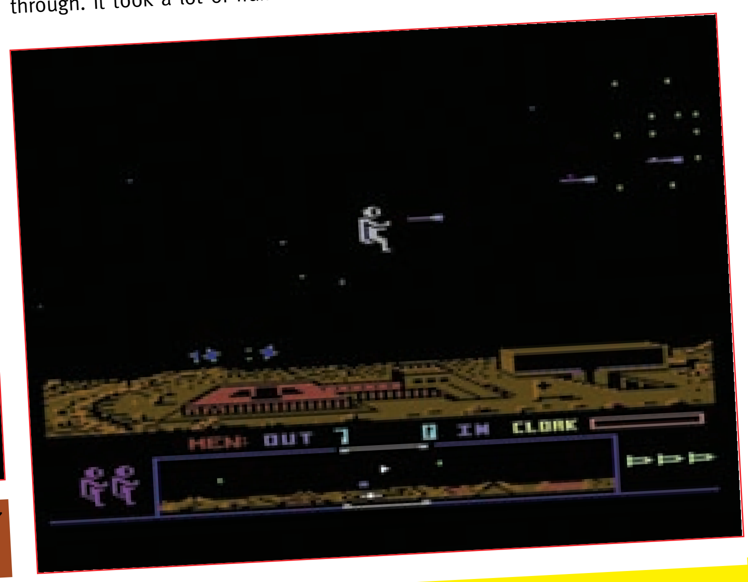
"IK+ was about skill and timing. All the moves flow into each other – you can start, say, a kick and change it into a headbutt halfway through. It took a lot of frames of animation, but meant you could respond quicker. You could see what your opponent was doing and had .08 of a second to respond, which is just enough time for a human being to react."



Dropzone, Archer's first title, was a clone of Defender, one of his favourite arcade games

Snookered

So, having produced a super-fast shooter, then a slick fighting game, Archer took the unusual step of deciding to implement the rather



more sedate sport of snooker. It emerges, however, that he first had the idea back in 1981, after a particularly lucid dream in which he floated like a camera over a snooker table, watching balls rolling around the green baize. He tried to draw spheres on the screen of his Atari 800, implementing some of the 3D maths he was studying as part of his university course, but concluded that he couldn't get the required frame rate. Fast forward to 1988 and Archer is playing around with screen-grabbing software on his Atari ST.

"The snooker was on BBC2 and I grabbed a close-up of a pocket. That night I remembered the dream I'd had all those years ago. I went into one of my intense 'Can I do it?' modes for 48 hours, trying to write the trickiest bit, which would be the ball-plotting routines, and worrying about shadow and half shading. I worked out a neat trick and got it running at 17 frames a second."

It was game on. The program was to be called 147, but the surreal intervention of none other than TV prankster Jeremy Beadle resulted in a name change. The



game was being previewed at a computer show and the bearded comic genius wandered over and commented "That plays just like Jimmy White."

"I remember someone saying that Beadle has millions of crap ideas, out of which one is brilliant. Trouble is figuring out which one. We went over to see Jimmy's agent, Barry Hearn, and sorted out a deal." I wonder if Archer approves of games licensing big sports stars to endorse their products, which is usually a desperate attempt to flog a substandard product to gullible consumers? "This was different", explains Archer. "The game was already finished and was going to be a hit anyway, but by getting Jimmy involved, it just took it to another level. TV interviews, loads of media coverage – it was just massive."

The game was indeed a huge hit and another genuine source of pride for Archer – his home not only contains an ornate, wood-panelled snooker room (modelled on the one featured in Cueball 2) that has often played host to Jimmy White's mercurial talent, but Archer also undertook the colossal job of adorning one wall of his swimming pool with a Grecian-style fresco that features himself, Jimmy and Richard Branson, whose company published the title. He's since revisited the snooker and pool genre many times, with games such as Archer Maclean's Pool and the Cueball series, which have appeared on over 12 formats to date.

One man band

Archer is noted for previously handling the majority of conversions himself, which he puts down to some simple facts. "I didn't write elegant code, I just did what I had to, to make it run fast. I worried





Whirlwind Snooker was the first of several collaborations between Archer and Jimmy White



Well, he got the Ferrari after all! Archer pictured with Jimmy White



This is perhaps Archer's prize possession – an ultra-rare Robotron cocktail table

people wouldn't understand what I'd written and on the one or two times I did have a hands off approach, it was a complete mess. Of the 13 projects I worked on alone, 11 were number ones, whereas conversions I'd not worked on tended to be also-rans."

However, the time is approaching when this steadfast one-man development team has to recognise it's not getting any easier to handle everything yourself. "The last game I wrote on my own in its entirety was the Megadrive version of Jimmy White's Snooker. It was a nightmare. Everyone said it couldn't be done – even Dave Perry, now of Shiny Entertainment, said I'd bitten off more than I could chew, but I said I could do it and went back to the manuals, just like I had in 1980 on the Atari. I devised a bizarre way of creating a 3D screen by only updating the parts of the screen that had changed. It was probably the hardest thing I've ever done and almost put me off programming. After that, I went on a wild trip of wine, women and song for a few years... basically, I went mad."

Recalling those heady times away from the industry brings an intriguing grin to Archer's face, but since 1997, he's been back in the fold, heading up Awesome development studios, which in 2002 merged with its distributor so that the company can handle all aspects of game production. He admits that much of his time is now taken up with management responsibilities and he misses the old days of hard coding. However, his entrepreneurial spirit has always been there, ever since he financed his first Atari partly by building computers from kit form in the mid seventies and selling them on. "I built about 10 – Compuchip 101, Nascom 1 and 2, MK68 from Sinclair – but it struck me early on that building hardware, with 150 odd chips and all that soldering was far harder than writing software. I went to a small company called Microsoft in Berkshire, who had about 20 employees back then, and bought an 8Kb basic interpreter for £120 in 1976."

With these skills in programming and electronics, he managed to further supplement his income by working at a local electronics company called Ambit International, which had links to Sintrom Computers. Through this he met Roland Perry, who went on to design the hardware for the first Amstrad micro. "He was an inspiration. I saw some of the stuff he'd written in BASIC and it spurred me on to write myself. It was pioneers back then, not leaders, and he was one. I remember he always used to turn up in a Maserati or Ferrari, with a babe on his arm a foot taller than he was. That inspired me too – I thought, "I want one of those."

It's not exactly clear which 'one' he is referring to, but I think we can safely conclude that the young Archer correctly saw them as coming as a package. So, was this around the time he wrote his first program? "Yeah, it was on punch tape and I was trying to solve a quadratic equation, which I thought was quite adventurous for a 14 year old. I've still got it in a cupboard next door."

Memory bank

Archer uses that last phrase a lot during the afternoon. Whether it's that first stab at programming, the chart from his university days that tracked his growing high score on Robotron, the Atari he wrote Dropzone on, or videos of every television appearance, he has meticulously saved so many details of his life. His collecting goes beyond his almost definitive collection of arcade cabinets, to embrace classic cars, pinball tables, early pocket calculators and a huge collection of vintage digital watches – an obsession that began after seeing the glowing LED display on one memorable edition of Tomorrow's World, circa 1972. Does he think he's a compulsive collector?

"I call it comfort collecting. I don't collect anything for its value, it's because it has an emotional attachment for me. I had a very screwy, mentally unbalancing childhood and went without a lot of things that every other kid seemed to get. I remember all the watches parents had bought other kids and they were showing off. The desire to feel normal drove me to want stuff others had, and that drive kind of never stopped."

It's a candid admission, and one that will surprise anyone who has met such a welcoming and apparently self-confident man as Archer. If you haven't had the pleasure of hearing his passionate championing of all things arcade and retro, I recommend you attend next year's Classic Gaming Expo UK, where he is a guest of honour. "I've said I'll do it only if I can have my own stand and bring along some restored machines, including the Dropzone cabinet I'm working on, all on freeplay, for folks to enjoy." I don't think you'll find anyone objecting to that, Archer.

Before I leave, I ask how he thinks he'd cope on a desert island. "I think I'd rather like it, but it depends how restrictive it was... if it had games, it must have electricity and so I could take a laptop. I wouldn't want to miss anything on eBay..."

For photographic sequences of two of Archer's restoration projects, go to: **www.ionpool.net/arcade/archuk/bw_restoration.html** **www.ionpool.net/arcade/archuk/asteroids_retoration.html**

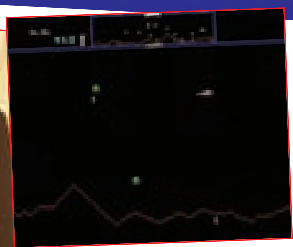
All of the arcade images over the page are from Archer's private collection. For more information you can visit his new arcade/retro site at: **www.robotron.co.uk**.

Thanks to Tony 'TT' Temple and Ian Pare for help their with this article

Defender

Still one of the most complete arcade games ever. It was a seminal design moment too, because it took the original Space invaders theme of saving the humans away from a single-screen experience, placed it on a scrolling planet and threw in some additional enemies, all with their own characteristics. Brilliantly balanced, and you can never really have a break until it's game over. Of course, when you think you've conquered it, move up to the sequel Stargate, but grow some extra fingers first! Hats off to Eugene Jarvis for this one.





Missile Command

Unlike those nutters that play Jamma button-bashing games, Missile Command is all down to dexterity and skill in manipulating that trackball, allowing for weight and inertia. Again, you are protecting humans, defending cities. It took me a long time to realise the subtleties of the gameplay, like the fact that the middle base fires a lot faster than the side ones and that the game only ever targets three cities at once. You can work out within about half a wave which they're targeting if you're alert enough. I've never conquered it – it's a challenge to me and that's perhaps why I'm still drawn to it.













Robotron

Eugene Jarvis, who wrote this and Defender and Stargate, is my inspiration when it comes to writing games. The balance, the gradual increase in difficulty, pushing your skills to the limit. We had a Robotron machine at University and it was probably six months before I got past 200,000 – a nightmare, but I still kept going back.

Probably the only game I know where you have to stand upright, and use your left hand to move and your right hand to shoot, with both working independently. You've got to look where your man is and observe out the corner of your eye where the humans are to be saved, using your ears to register things that have happened outside of view. And you have to do all of this together. Immensely absorbing and completely addictive. I play it most days.

Asteroids

The lure of the bright white dot… I used to wonder how on earth they achieved that? Of course, I know now it was Vector based, but I spent ages on my Atari 800 trying to write plot routines to get asteroids running as smoothly and as fast as the arcade game. I couldn't do it – hats off to author Ed Logg. I got to meet him a few weeks ago and we had a right old blast about the good old days. And Asteroids had the same effect as Tetris did years later – I used to dream of rocks floating in space…

Space Invaders

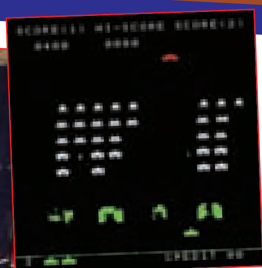
It's got to be the Taito machine with the beautiful backdrop. I still find it a challenge to this day. It was one of the earliest games to use emotion – it had that heartbeat… You ended up sweating. It really brings out your survival instinct. And the memories of playing it in 1978 down the squash club, trying to get the high score.

The first Space Invaders machine I got had been in a bloke's daughter's bedroom since 1982. The only bad thing about the cabinet was that she must have been a Spice Girls fan, because a bloody calendar was stuck over the head of the invader on the side art and it took a bastard amount of energy to get the glue off without damaging it anymore than it already was.

Tempest

I remember the first time I saw one of these fabulous machines. It was down the General Wolfe pub in Foleshill road, Coventry, where I went to University. We sneaked in there one lunch time for a swift couple, and I saw this incredible 3D-looking blue grid of light and energy flying towards me. I had to have a go. I think I was three hours late back to college and spent an entire week's rent or something. It's still one of the most abstract games out there. Recently, my own personal, restored Tempest found its way into Jeff Minter's hands, and he hasn't given me a call to say it's bust yet. Maybe he's not playing it hard enough or something.

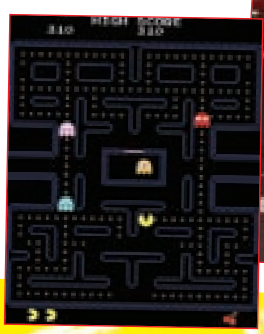


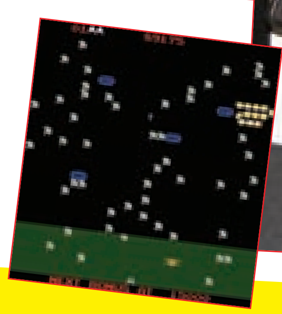














Pac-Man

Such a simple game and known the world over. Everyone knows it and has played it, probably on their mobile phones these days. I still play it, though the outcome is usually the same… You just couldn't really not have Pac-Man on your island.

Millipede

Another classic, but it wasn't really known over here, as only a few were ever imported. Centipede is good to a point, but is too easy, whereas Millipede is like Centipede on steroids. Just mental. Mind-blowing – a real reaction game. I love it – plus I like the shape of the cabinet and the artwork.



The top 100 games as voted for by you
‹part one, 100 to 51›

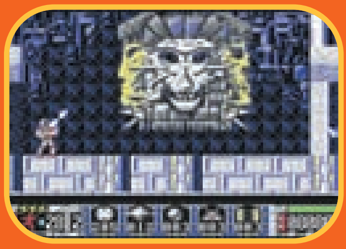


Back in our first issue we revealed our 10 favourite games across 10 retro formats, making up our top 100 games of all time. But we weren't about to completely disappear up our own backsides, so we asked you to send in your nominations for the best games ever, and you did! In total, over 700 individual games were voted for across over 30 different formats. So without further ado, we begin the countdown from numbers 100 to 51...

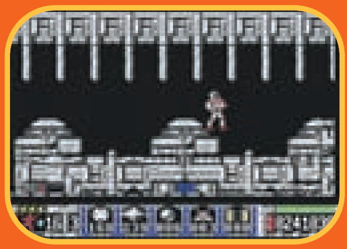
100 Turrican

100

Rainbow Arts, 1990



Manfred Trenz silenced many developers with the release of Turrican, as it boasted some of the best animated graphics seen on the Commodore 64. Trenz skilfully combined many elements from the platform and shoot-em-up genres to create this epic. It's one of the must-play games for the old C64, particularly the disk version which welcomed you with a superb digitised SID sample that set the tone for the game, booming out "Shoot or die HAHAHA!" – all great stuff. The fact that Turrican has only managed to make last place in our countdown says much more about the overall standard of the others than the quality of this game.



99 Spy Hunter

99

Midway, 1984



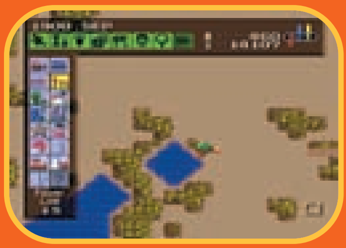
Become James Bond, ridding the world of evil spies by knocking them off the road in your armoured car, or out of the water with a similarly tough speed boat. In this vertically scrolling affair you had to survive the dangerous roads and rack up points, whilst trying your utmost to collect weaponry and destroy other motorists in a ruthless and indiscriminate fashion. This Midway arcade classic is still very playable today, with a simplistic yet compelling concept – prove how hard you are by driving tough and wiping out anyone who gets in your way. The Peter Gunn theme tune finishes things off nicely.



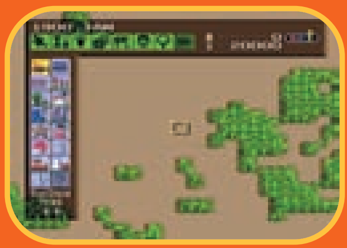
98 Sim City

98

Maxis, 1989



Sim City pretty much started the whole 'god-game' genre, allowing players to construct and control a living, breathing city. You'd begin with an empty expanse and your first job was to create industries, then provide houses for the workers to live in. The people needed power too, so you had to hook everyone up to the national grid, and, of course, build a road and rail infrastructure for the people to get about. If the figures were good – low unemployment, low crime – the populace would be happy and wouldn't object to paying your ridiculously high tax demands! Sim City was completely engrossing.



97 Resident Evil 2

97

Capcom, 1998

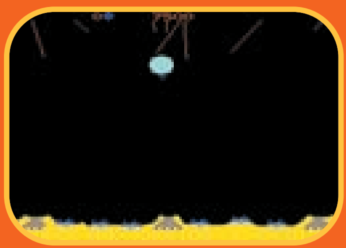


After the horrific events at the mansion on the outskirts of Racoon City, Resident Evil 2 picked up the story as the ill-fated protagonists Leon S Kennedy and Clare Redfield stumbled upon another outbreak of the zombie-creating virus. This time the threat was even more deadly however, as Racoon City itself was the game's setting. With Resident Evil 2, Capcom delivered more class to the survival horror genre. Not only was the game huge (you could play it through four times as each character had an A and B story), but it looked better, featured more explosive weapons and starred a host of new grotesque assailants (remember the Lickers?). Following its initial release on the PlayStation, the game was ported to several platforms, including the N64, Dreamcast and GameCube, and is considered by many to be the best in the long-running series.

96 Missile Command

96

Atari, 1980



Alien invaders from the planet of Krytol are attacking and as the commander of a missile base (which is your last line of defence against the onslaught of the enemy) you must repel them at any cost. Under the range of your missile base are six cities and you must use exact timing and precise firing of your somewhat limited weaponry to protect them. This timeless Atari classic has appeared on many home consoles and computers, but Missile Command is always best played in the arcade, using the machine's unique trackball controller to aim your missiles.



95 Grand Theft Auto 3 95

Rockstar Games, 2002



The fact that Retro Gamer readers voted for this relatively recent game speaks for itself. GTA3 is a modern classic, taking the 2D originals and bringing them bang-up-to-date with stunning 3D visuals, while never sacrificing the completely open-ended gameplay. The game was released with very little fanfare and almost no hype, as low sales of the second game in the series had seemingly killed interest in the series. But GTA3 has gone on to become one of the biggest-selling titles ever, despite its adult nature and 18 rating. It's also critically acclaimed by just about everyone.



94 Gran Turismo 3 94

Sony, 2003



Well, we did say vote for any game, but one that arrived in 2003 is hardly retro. Nevertheless, the Gran Turismo series has been considered one of the all time racing greats ever since the original rolled out of the garage back in 1997 on the PlayStation. The mix of realistic handling and superb graphics, not to mention the fact that it features 100s of licensed vehicles, has won it the admiration of car lovers everywhere. The gameplay may be a little too deep and difficult for many, but for its core followers, Gran Turismo is the be all and end all of digital racing, and GT3 has been voted as the best of the bunch.



93 Final Fantasy 93

Squaresoft, 1987

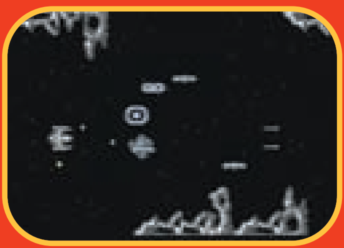


Long before the FF series became a virtual art form laden with epic CG visuals, and before Square had even considered its move into cinema, the original Final Fantasy wooed players the world over. The original game bore more stereotypical RPG characteristics than its modern incarnations, and you could choose from various classes, such as a thief, mage or fighter. You then embarked on a massive quest full of adventure and turn-based strategy, something that would shape the never-ending series of sequels. Despite poor visuals and a relatively simple quest, many still consider the original to be the best (with the exception of FFVII).

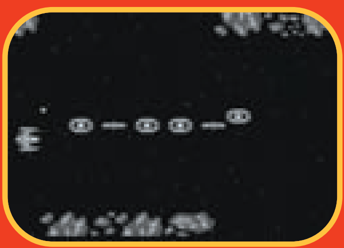


92 Delta 92

Thalamus, 1987

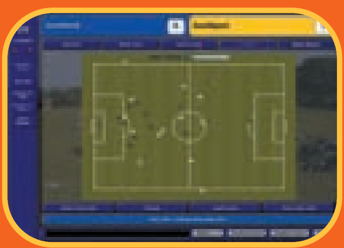


Delta was simply one of the best shoot-em-ups ever, featuring great graphics and thumb-numbingly intense gameplay. The story was the usual nonsense – something about a Bermuda Triangle in space that keeps swallowing ships – but the action quota couldn't be faulted. In a time when shooters had set attack patterns and titles were more like memory tests, Delta shone out like a beacon. The alien attacks were excellent and the whole thing ploughed along to some superb music. Ask any shoot-em-up fans about Delta and they'll tell you that they either find the game frustratingly addictive or just plain frustrating.

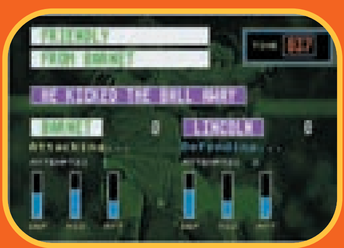


91 Championship Manager 91

Domark, 1992



This is a game that you either love or loathe. There's a whole nation's worth of fans out there that, to this very day, can't get enough of Champ Manager, and spend an unhealthy amount of their time sitting in front of the screen trying to take their low-division team to the promised land of the Premiership. Then there are the people who see Champ Manager as nothing but a statistical spreadsheet. Whatever your stance, there's no denying that Champ Manager is one of the longest running and most enduring titles around that possesses an additive and challenging representation of football management.



90 The Last Ninja 90

System 3, 1987



This game is generally regarded as the least impressive of the Last Ninja series, but everything must have a beginning. Heralded as a classic of its day, and still worthy of this accolade, The Last Ninja took the psuedo-3D environment and added a superb game engine that proved to be popular enough for the first two games to enter the top 100. It was a beat-em-up come role-playing game with a unique control method, and is a must-play Commodore 64 game. The fact that a PlayStation2 port is in the pipeline just goes to emphasise the game's enduring popularity.

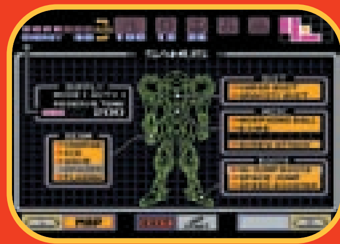


89 Super Metroid 89

Nintendo, 1994



The adventures of Samus Arran, the intergalactic heroine, had been a huge success on the NES and GameBoy, but people were simply blown away when the series arrived on the SNES. Returning to the planet Zebes on the trail of the last ever Metroid, Samus embarked on her biggest adventure yet. Super Metroid took the title even further then ever before, with a huge world to explore, tons of power-ups, intricate level design and massive bosses. The whole game was dripping in atmosphere and was packed with references to the previous games, which further endeared it to old hands. To put it simply, Super Metroid is the best of the series.



88 Double Dragon 88

Taito, 1987



This game received a sound slagging off in Retro Gamer issue 6 – the GameBoy Advance version achieved a low score and the Commodore 64 port entered the hall of shame. You guys reckon it's good enough to enter the top 100 though, and some of you even voted for the C64 version specifically, which was a little worrying! Still, the original was a classic in the arcades, bringing beat-em-up action to the 10p-guzzling machines and allowing you and a mate to clean up the city streets. It was a bit like Kung-Fu Master but with more moves, bigger baddies, better graphics and a greater degree of wince-making.



87 Star Wars 87

Atari, 1981

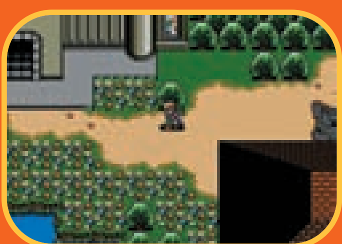


You can take your Jedi Knights and your Knights of the Old Republics, because one of the best Star Wars games ever was this arcade instalment. Featuring amazing vector graphics, superb speech and one of the best arcade controllers/cabinets ever, the game placed you in Luke Skywalker's space boots as he took on the mighty Death Star, time and time again. The key to the game was simplicity. All you had to do was move the crosshairs around the screen in order to shoot Tie Fighters, gun turrets and projectiles, so you could reach the Death Star trench and, in turn, the exhaust port to the main reactor. She's gonna blow alright!

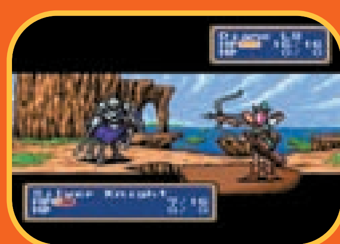


86 Shining Force 86

Sega, 1992

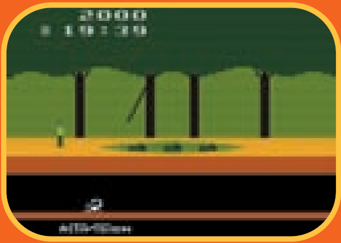


One of the greatest Megadrive games of all time and a definite office favourite. Shining Force took the standard elements of an RPG (levelling up, stats, weapons etc) and blended them together with deep strategic battles more akin to chess than a console title. The end result was an adventure that not only compelled you via its epic story, but enticed you with challenging battles that you felt in total control of. You could develop your own tactics, come up with ingenious strategies, and choose from a wide rage of attacks and powers. Add to this the various adventure stages and you've got a truly unique RPG masterpiece.



85 Pitfall

Activision, 1982



David Crane's Pitfall stands out as one of the finest Atari 2600 titles, and the simple run and jump concept was so popular that the game was ported to just about every platform under the sun. As Pitfall Harry, you had to employ faultless timing to successfully overcome obstacles such as scorpions, crocodiles and gaping chasms, all in the pursuit of gold bars hidden in the dense jungle. Featuring over 250 increasingly challenging screens, the game was very difficult to complete, but due to its addictive nature, we tried and tried again regardless. In our minds Pitfall 2 was bigger and better, but surprisingly the sequel doesn't make the top 100.



84 Pirates!

MicroProse, 1987



With legendary sim creator Sid Meier at the helm, Pirates! became an instant hit, providing players with levels of depth and complexity not seen in any other game. As the captain of your own ship, your goal was to seek fame and fortune on the open seas. You could sail the oceans, doing battle with other ships, and you could visit the many ports and towns to down a flagon of ale or chat with the locals. The graphics may have been poor (even by the standards of the time), but it was the epic gameplay that made this title shine. People still play the original version, even though Sid Meier himself produced later versions.



83 Oids

FTL Games, 1987



Imagine a mixture of Thrust and Choplifter and you have Oids. The game had you travelling to various planetoids and rescuing your fellow race of androids. Using your V-Wing craft you had to carefully use your thrusters to manoeuvre yourself around the often cramped caves and landscapes, in order to land and pick up your targets. But before you could rescue your captive comrades, you had to very carefully blast open the factories in which they were enslaved. As well as all this tricky piloting, you also had to fend off attacks from enemy ships. Despite the simple and not entirely original gameplay, Oids was a very addictive title.



82 Mr. Do!

Universal, 1982



This frantic maze game was a welcome alternative to Pac-Man when it first appeared in 1982. Clowning around as Mr. Do, you had to harvest all of the cherries on the screen. You weren't alone though, as there were numerous bad folk walking around. Luckily, Mr. Do was able to defend himself in two ways – he could push the apples located throughout the playfield onto the enemies and crush them, and he was armed with a power ball that was capable of destroying his oncoming foe. Yes, it was completely barking, but also a lot of fun, with clear, colourful graphics and many challenging levels.



81 Mayhem in Monsterland

Apex, 1993



Platform action was never as fast or as beautiful on the Commodore 64 as it was in this game. Utilising bugs in the graphics chip to generate more colours and super-fast sideways scrolling, this game was declared 'The Perfect Game' by Commodore Format just over a decade ago, and scored an impressive 100% overall rating. Mayhem is seen as the C64s answer to Sonic the Hedgehog, and with all of the hype surrounding it, this title was a favourite in the last days of the C64's commercial life. Unfortunately, the game wasn't so perfect after all, as a small bug affecting the lives counter slipped into the final release. It's still a great little game though.



80 Mario Kart 64

Nintendo, 1996

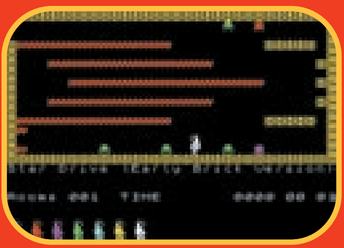


The moustachioed plumber once again returned to Nintendo's 64-bit platform in another remake, this time of the SNES classic Mario Kart. All the original Mario Kart flavour was translated over to the new platform, along with better graphics and some new locations to race around. Mario Kart was all about the multiplayer though, and thanks to the N64's four-player capability, the game reached new-levels (which was, in our opinion, the only thing that differentiated it from the original SNES incarnation). Having four people race around on one console was an absolute blast.

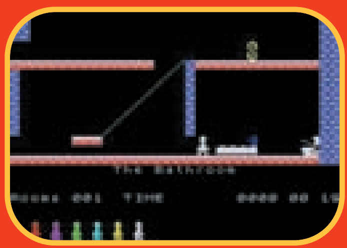


79 Jet Set Willy 2

Software Projects, 1985

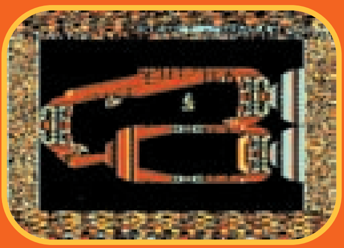


Unlike the original, Jet Set Willy 2 actually needed an introduction, as its history was quite complicated. The game began as a port of the original JSW to the Amstrad CPC. Programmer Derrick Rowson utilised the extra capabilities of the CPC by adding over 70 new rooms. Then, when Software Projects quickly needed to bring a sequel to market, following the cancellation of Mega-tree, Rowson was called on to port his CPC version of JSW back to the Spectrum. The result was a game with all the rooms of the original plus many more, including some in space. A missed opportunity maybe, but still lots of platforming fun.



78 Exile

Superior Software, 1989



Probably the last truly great game to have been originally developed for the BBC, Exile was such a massive hit that it was later converted to the ST and Amiga. It was a scrolling platformy arcade adventure that was not only enormous, but boasted innovative features such as speech (on the BBC!), monsters that reacted to sounds you made, and a wide range of open-ended puzzles that could be solved in a variety of ways. It was supplied with a novella explaining the background story, and there was a cash prize on offer to the first person who completed the game. A true classic.

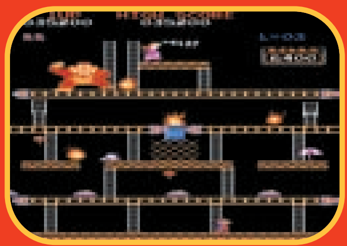


77 Donkey Kong

Nintendo, 1981



Whereas Space Invaders invited gamers to murder thousands of alien aggressors, Donkey Kong milked our gaming glands in a whole new way. Donkey Kong introduced us to Nintendo and a diminutive, moustachioed plumber called Mario. It also showed the world that leaping over platforms and hitting things with a hammer was actually fun (and lucrative). Everybody's got his or her favourite Donkey Kong level, but each of the four seemingly simplistic designs proved fiendishly difficult to master yet fun to play. It's testament to Nintendo that the platform genre remains one of the strongest lures to gamers to this very day.



76 Turrican II

Rainbow Arts, 1991



The original Turrican was hailed a classic by many Commodore 64 gamers, and this eagerly awaited follow-up from original coder Manfred Trenz, managed to take things one step further. Bigger, better and badder in almost every way, with superbly drawn enemies and a range of wild weapons to destroy them with, platform action didn't get much better than this. Turrican II and its predecessor are definitely genre-defining games, and the original C64 releases are amongst the machine's finest gaming moments. The 16-bit ports were great too.

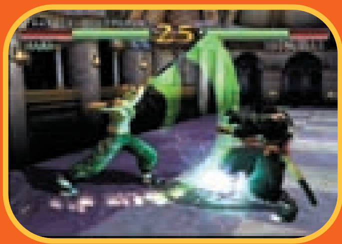


75 Soul Calibur

Namco, 1999



After the massive success of Soul Blade (aka Soul Edge), Namco realised that beating people up with massive pieces of metal not only looked good but was hugely enjoyable. Hence the arrival of Soul Calibur in the arcades (and later, on the Dreamcast). Taking visuals to the next level, Soul Calibur not only looked like a work of art, it had gameplay to match. The characters had their own strengths and weaknesses, and it took ages to master the full abilities of each one. Not only that but the game also had extra gameplay modes such as the Edge Master quest, and a whole raft of unlockable content. Flawless.



74 Secret of Mana

Squaresoft,1993

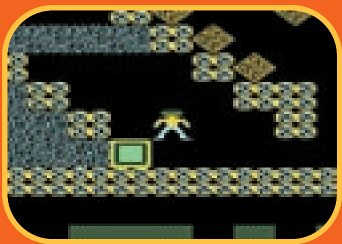


With its unique battle system and engrossing storyline, Secret of Mana was Squaresoft's answer to The Legend of Zelda. The adventure was massive – we'd expect nothing less from Squaresoft – but always enjoyable, and thanks to the Zelda-esque style, combat was in real time and wasn't turn-based as in the Final Fantasy series. This was enhanced by the stamina system (the more stamina you had, the more powerful your attacks were). The characters were typically Squaresoft and developed as the game progressed. The whole adventure oozed class from start to finish.

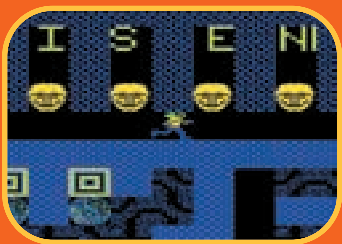


73 Repton

Superior Software, 1985



Collecting diamonds from dangerous mines seems to be one of our readers' favourite pass times, as both this title and Boulderdash notched up a fair few votes between them. The eponymous alien had a big green head, bright yellow jumper and red hands and legs, making him one of the most distinctive computer game character of his day. Repton was one of the games that originally put Superior Software on the map, and was followed by Repton 2, Repton 3, Repton Infinity and others. However, the original was the only one to make our top 100.



72 New Zealand Story

Taito, 1989



Cute platform games have rarely been so much fun or so popular. The hungry Wally Walrus is planning a mega-feast for his tea, and has been to the local zoo to find a few choice cuts of meat. During this kidnapping, Tiki escapes and has a limited amount of time to get his friends back by penetrating Wally's lair. To do this he must beat back the onslaught of fiendish foe with a bow and arrow. This is a great arcade platform game, that was perhaps overshadowed by the superior Rainbow Islands. The game made its way onto many home formats, and is well worth a second look.



71 Magicland Dizzy

Codemasters, 1990

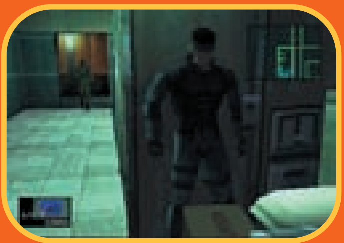


Ahhh, the one and only Prince of the Yolkfolk. Dizzy games were renowned for being ridiculously tricky and challenging adventures, but despite the steep level of difficulty, they became massively popular. Everyone has their own favourite title from the long-running series, but Magicland Dizzy has emerged as arguably the best of the series, perhaps due to its great blend of puzzles, locations and characters. In the game, the evil egg-hating wizard Zaks is once again up to no good and has not only kidnapped Dizzy's love interest, Daisy, but has enslaved the realm of Magicland. Needless to say, Dizzy is the only one who can stop him, again!



70 Metal Gear Solid 70

Konami, 1998



It was a long time coming, but the adventures of Solid Snake eventually arrived on next-gen consoles, and instantly had a massive impact on the gaming world. As the eponymous Solid Snake you had to infiltrate the Shadow Moses weapons facility to stop a group of terrorists and eventually fought with another incarnation of Metal Gear. Stealth was the order of the day, and using his range of moves, you had to try to stay out of sight, achieving your mission in the shadows. MGS was praised at the time for its unique graphical looks and excellent story. Larger than life characters filled the game and the many cutscenes conveyed the story, often setting up the memorable boss battles. It was indeed true that playing MGS was more like watching a film than a game, and even though the PlayStation2 sequel looks more impressive, MGS is still by far the better game.

69 Match Day II 69

Ocean, 1988



Jon Ritman's masterpiece is the first football sim to enter the top 100, and it certainly deserves to be here. Match Day II was a couple of leagues above the original, offering a slicker, speedier version of the beautiful game and a power bar allowing you to control the strength of your shots. You could play against the computer or a mate, team up against the computer or play with seven others in a league or cup situation. Match Day II certainly consumed a few hours and its players a few beers. All that was missing was the crowd and bad refereeing decisions, but otherwise it is the most comprehensive game of its type for an 8-bit home computer.



68 The Last Ninja II 68

System 3, 1990

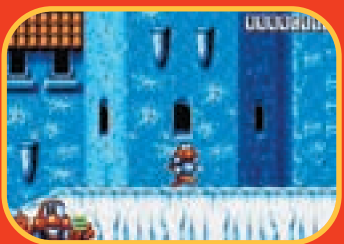


So you reckon that Last Ninja II is better than the first? Way back in our first issue, we didn't, but in your droves you have attempted to show us who's right here. OK, so the vast majority may plump for the ninja in New York episode, but we're sorry, it just doesn't wash with us and we still stick firmly to our guns. Making a pair of nunchaku out of two toilet chains? Come on people, for God's sake. But that said, the public has spoken. So, you win, the second in The Last Ninja series is the best. You've made your point, so can the abusive hate mail please stop now?



67 James Pond II: Robocod 67

US Gold, 1991



Robocod marked the second outing for James Pond, who proved to be one of the most memorable platform characters of the 16-bit era. With a modified robotic body that extended upwards to great lengths – he was like a fishy Inspector Gadget – the highly evolved fish had to stop the evil Dr. Maybe's plans to dominate the world before it was too late. Originally appearing on the Atari ST, and then gracing the likes of the Megadrive, this brilliantly colourful platform game still plays well today, as evidenced by the recent PlayStation port.



66 Shenmue 2 66

Sega, 2001



This troubled and very experimental gaming experience was one of the last games to appear on European Dreamcasts, and although many people simply couldn't see what all the fuss was about, we, and obviously you lot, thought it was amazing. As Ryo Hazuki, the sequel saw you continuing your hunt for your father's killer, Lan Di, only this time your adventure took you to Hong Kong. Ditching badly dubbed American voiceovers for the far more suitable original speech, Shenmue 2 pushed the formula even further with a much larger and more detailed world to explore, more combat and action sequences, and some truly spectacular cinematic moments. A 2001 release isn't very retro, but the game was set in the 80s – you could even go to an arcade and play some classic AM2 games like OutRun and Afterburner. Talk about a nice touch...

65 Flash Back 65

US Gold, 1992

When the original Prince of Persia arrived, animation became something that practically every game developer wanted to improve on, with true human movements being the holy grail. We may take this for granted in today's productions, but when Flashback arrived, this was the pinnacle of graphical achievement. As Conrad, a man without a memory, you had to fight your way back to Earth in a bid to save mankind. Flashback mixed puzzles and platforming to great effect, and the aforementioned animation was the icing on the cake. Some levels were truly revolutionary – in New Washington you had to get a job amongst other things, and there was even a Running Man-style game show to participate in. Add to this a great story and it's no surprise that the title is in the top 100. Dephine's predeccesor, Another World, was a great game too.



64 Streets of Rage II 64

Sega, 1993

From the first time you flattened a street punk with a Grand Upper to the final boss' last gasps of air, Street of Rage II was quite simply an awesome beat-em-up experience. In a time when 16-bit console owners constantly argued over which machine was best, Streets of Rage II was an explosive salvo of ammo that Megadrive owners used to batter their SNES owning mates. As either Axel, Blaze, Max or Skate, you had to fight a never-ending stream of bad guys in order to reach the final encounter with Mr X, the evil syndicate leader terrorising the city. This meant you'd fight through all sorts of locales, including ghettos, theme parks, construction sites and more. Accompanying the brutal action was a soundtrack by Yuzo Koshiro, which was a work of excellence. Streets of Rage II was a classic battler and really made you feel like you had your own arcade at home.



63 Laser Squad 63

Blade Software, 1988



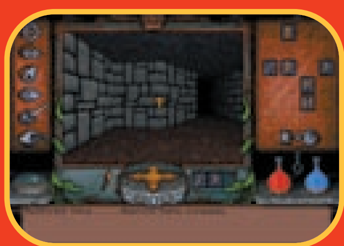
Laser Squad was a classic strategy war game that could be played against a friend or the computer. Unlike other such titles, the game was very easy to pick up and learn to play. On loading, you were given certain scenarios to select and then the fun began. Controlling a team of soldiers, your task was to out-flank and destroy your opponent's army on the battlefield in a certain amount of turns. Each time you managed this, you were awarded one point. The first to reach 100 points won the game. Sounds simple, boring even, but Laser Squad was simply engrossing.



62 Ultima Underworld 62

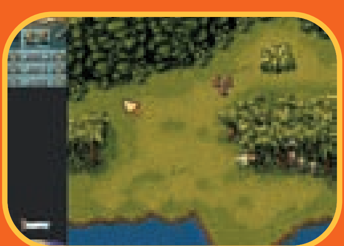
Origin, 1992

Far from the basic, almost ASCII look of the original RPG titles, Underworld was one of the first RPGs to go first person, plunging you headfirst into a 3D world of ugly monsters and high adventure. As the ever-ready Avatar, you returned to the land of Britannia only to witness the kidnapping of the Baron's daughter. As the only suspect, you were found guilty of the crime and thrown into the Stygian Abyss. You had two choices – either find the girl and escape the abyss or die in the dark underworld. The game was the first to feature real 3D environments, and unlike the limits imposed on you in the likes of Wolfenstein and Doom, here you could jump, fly and even swim. The game also had character interaction, real time battles and more than enough adventuring to sink your sword into. Easily one of the best entries in the long-running Ultima series.

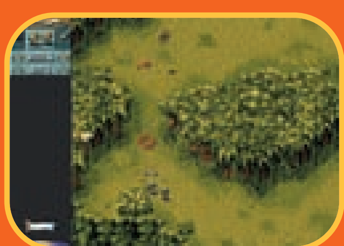


61 Cannon Fodder 61

Sensible Software, 1993



One of the first controversial titles to hit the mainstream, Cannon Fodder was a real-time strategy war game with a twist of humour thrown in. The developers simply wanted to lighten up what was a serious subject, but many took offence to the tagline "War has never been so much fun." Underneath all the commotion though was a fast and frantic war game in which you had to lead groups of soldiers through various missions. Using the mouse and keyboard you had to move and shoot with speed and accuracy. The challenge was fairly easy to begin with, but soon became devilishly difficult. It never put people off though.

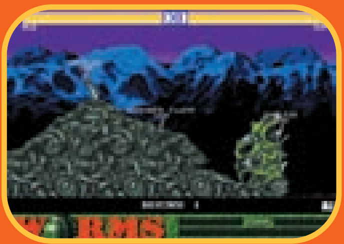


60

Worms

Infogrames, 1995

60



This was the first in a long, long line of worm-based tactical battlers and was a pure stroke of genius. Following the trend set by Psygnosis' Lemmings, Worms pitted two groups of worms against each other. By using such items as rocket launchers and machine guns, you could not only attack other worms, but could also destroy the environment and risk falling into the watery grave below. Although not apparent at first, the game was blessed with all sorts of tactical opportunities, and when played with a friend, it was truly entertaining game. There have been many, many sequels but the first is the one for purists.



59

Football Manager

Addictive, 1981

59



The name may have been snapped up by Sports Interactive, but the original Football Manager can still tug the heartstrings of grown men. Kevin Toms, affectionately known as 'Egobeard' by ex-Your Sinclair readers, created a concept that would influence a generation of football fans, and wasn't surpassed until the arrival of Championship Manager. The concept was simple – take charge of a footy team and use your managerial genius to guide them through the league and FA Cup. A slow yet compelling game and certainly one of the best-selling titles of the industry's early years.

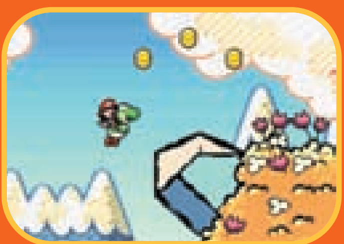


58

Yoshi's Island

Nintendo, 1995

58



After appearing in Super Mario World, Yoshi found fame quickly and it wasn't long until he was given his very own game. Yoshi's Island followed the same formula as the Mario series, but boasted a much more cartoon-like graphical style. The game was actually a prequel of sorts to Super Mario World, and took part in Mario's past. It was one of the only games to use the Super FX2 chip, which enabled all sorts of graphical tomfoolery, such as scaling, morphing and much more. As Yoshi, you had to carry around a baby Mario, keeping him safe from Kamek, a member of the Koopa family, who had prophesied that the plumbing twins would spell chaos for the tyrannical family. Possessing impressive visuals, classic gameplay and containing perhaps the largest Mario world ever, Yoshi's Islands was one of Nintendo's finest first-party titles.

57

Sonic the Hedgehog 3

Sega, 1993

57



At the time of release, the third Sonic the Hedgehog game was considered to be a bit of a letdown – it didn't have enough new features and instead served up more of the same. Add to that the fact that the game was seen by many as unfinished, until the arrival several months later of Sonic and Knuckles (which integrated with the third game), and it's hardly surprising that this game didn't chart higher. But, as time goes by, this third instalment seems to have aged like a fine wine and you, the readers, have grown to like the blue speed freak's third outing.

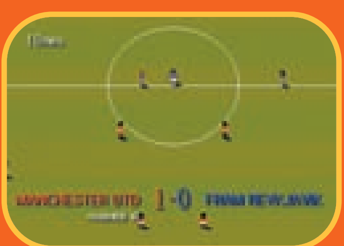


56

Sensible World of Soccer

Sensible Software, 1995

56



Sensible Soccer was and still is considered to be one of the greatest football games ever to grace our screens. Instead of trying to replicate the visual side of football – realistic play animation, flash moves and authentic stadia – it focused on the beautiful game itself. Possessing speed, playability and a never-ending challenge, mastering it could take a lifetime. Sensible World of Soccer was the first in the series to incorporate football management and featured hundreds of teams, players and leagues from all four corners of the globe.

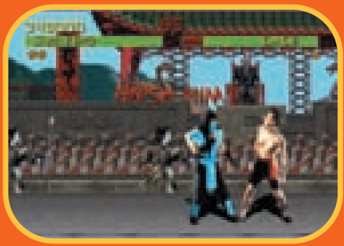


55 Mortal Kombat 55

Acclaim, 1992



The granddaddy of violent controversy and the only real challenger commercially to Capcom's Street Fighter II, Mortal Kombat featured digitised characters that fought each other, using all sorts of brutal attacks and supernatural powers, spilling plenty of claret on the way. Sadly, Mortal Kombat was fairly limited in the gameplay department, and was made famous by the gruesome finishing moves. Such lovely scenes as Sub Zero's spine-ripping decapitation and Raiden's head explosion are just two fine examples. Future versions would address the limitations of the first game, but this is where it all began.

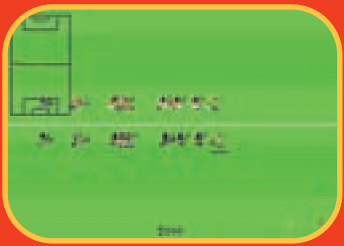


54 Kick Off II 54

Anco, 1990



Much like the arguments between FIFA and Pro Evo fans today, in the 90s the battle lines were drawn between Sensible Soccer and Kick Off. Kick Off II was the pinnacle of the series. Like Sensi, Kick Off didn't really bother with looks and instead focused on the all-important gameplay. The control system of Kick Off II was ingenious, and required almost as much practise as being a real footballer! The ball didn't stick to your feet, meaning you had to learn real control. Overall, the game represented a real challenge. Unlike FIFA and Pro Evo however, Kick Off and Sensi were evenly matched, and it's nice to see both in the top 100.



53 Lords of Midnight 53

Beyond, 1984



Mike Singleton released this sprawling epic in 1984, with the idea of generating a bigger virtual world above and beyond what had already been achieved in other adventure games. Your formidable task was to unite the Lords of the free lands of Midnight against the evil Doomdark and destroy his main source of power, the Ice Crown. Coming complete with a novella and a map of Midnight, Lords of Midnight was a superb package that put similar releases to shame. And just how did Mike cram so much into the humble Spectrum's memory? We're sure that's one question fans of the game still chew over.

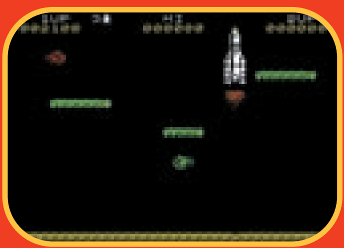


52 Jet Pac 52

Ultimate, 1983



In Jet Pac, being a test pilot was an incredibly difficult job. Usually, test pilots simply try out the latest in space-shuttle technology, but in Jet Pac you had to assemble the ship yourself. The parts to build the ship were strewn across a perilous planet, populated by various space nasties. Fortunately, you were armed with an impressive single laser and a jet pac that gave you the flexibility to either blast the hell out of everything that moved or avoid what you could. Once the ship was built, you then needed to put fuel in it before you could lift off. Released in 1983, Ultimate's first game was supremely impressive and it ran in just 16Kb!



51 Atic Atac 51

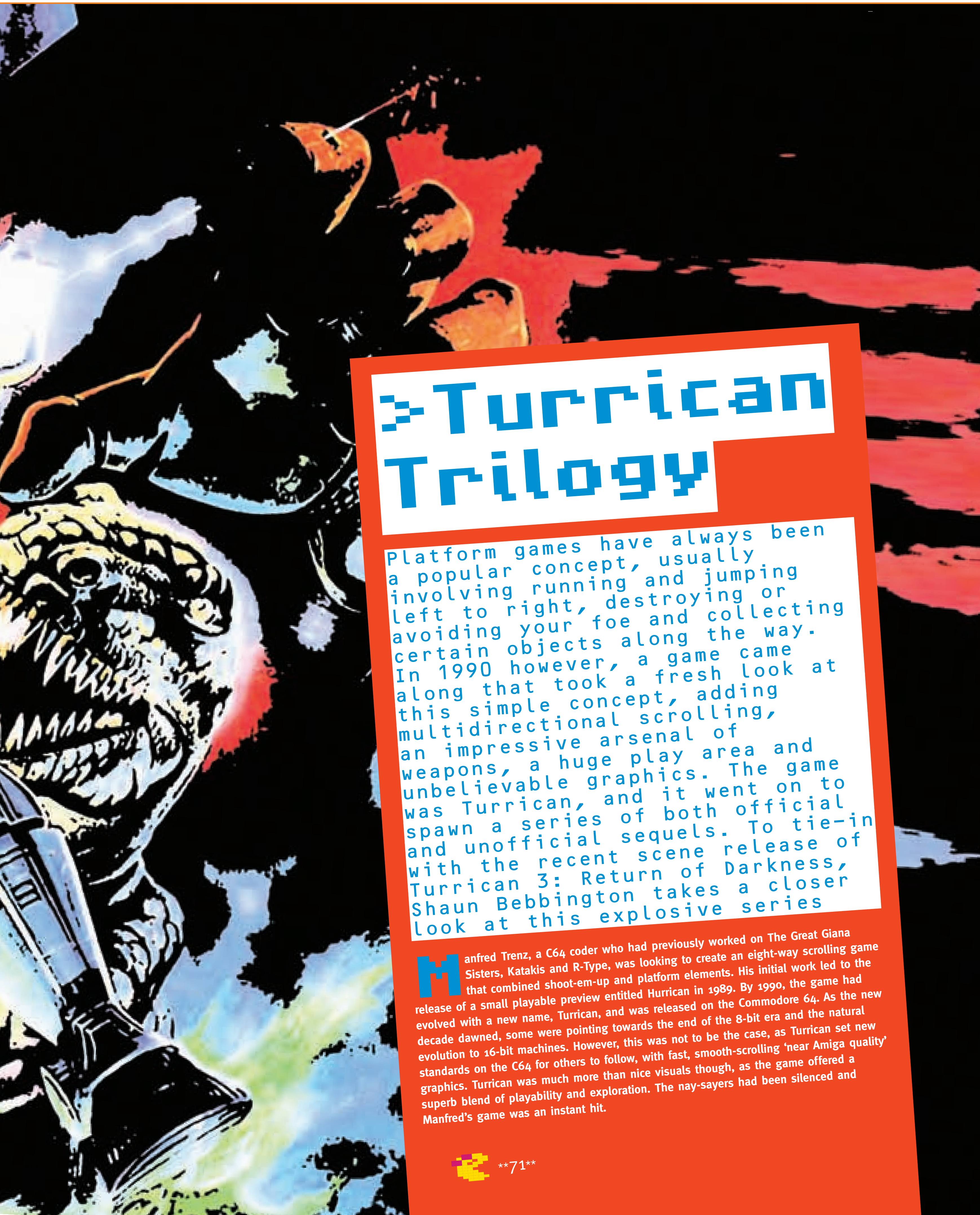
Ultimate, 1983



In Atic Atac you were trapped in a castle and needed to find three parts of a key that would aid your escape. Atic Atac is one of Ultimate's most memorable titles and adopted a top-down viewpoint later used to good effect in Sabre Wulf. You had to explore the vast castle, shooting the various baddies while maintaining your health. You also had the choice of three characters to play – a Knight, Wizard or Serf. This added a new element to the play as there were some passages that could only be used by certain characters. Another classic from Ultimate's early years, in a period in which no other software house could compete at the same level. RG*







>Turrican Trilogy

Platform games have always been a popular concept, usually involving running and jumping left to right, destroying or avoiding your foe and collecting certain objects along the way. In 1990 however, a game came along that took a fresh look at this simple concept, adding multidirectional scrolling, an impressive arsenal of weapons, a huge play area and unbelievable graphics. The game was Turrican, and it went on to spawn a series of both official and unofficial sequels. To tie-in with the recent scene release of Turrican 3: Return of Darkness, Shaun Bebbington takes a closer look at this explosive series

Manfred Trenz, a C64 coder who had previously worked on The Great Giana Sisters, Katakis and R-Type, was looking to create an eight-way scrolling game that combined shoot-em-up and platform elements. His initial work led to the release of a small playable preview entitled Hurrican in 1989. By 1990, the game had evolved with a new name, Turrican, and was released on the Commodore 64. As the new decade dawned, some were pointing towards the end of the 8-bit era and the natural evolution to 16-bit machines. However, this was not to be the case, as Turrican set new standards on the C64 for others to follow, with fast, smooth-scrolling 'near Amiga quality' graphics. Turrican was much more than nice visuals though, as the game offered a superb blend of playability and exploration. The nay-sayers had been silenced and Manfred's game was an instant hit.

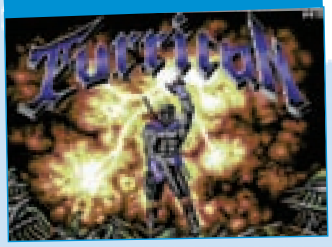


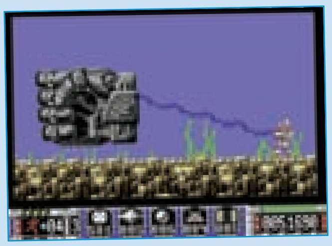


Turrican introduced some of the most awesome end-of-level monsters seen on the C64. The Fish (below) was particularly impressive

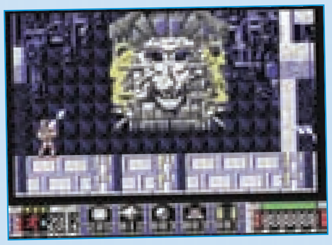


The Turrican loading screen (below) was inspired by a Manowar album cover





The Fist greeted you after you completed the first level. The last end-of-level guardian is shown below





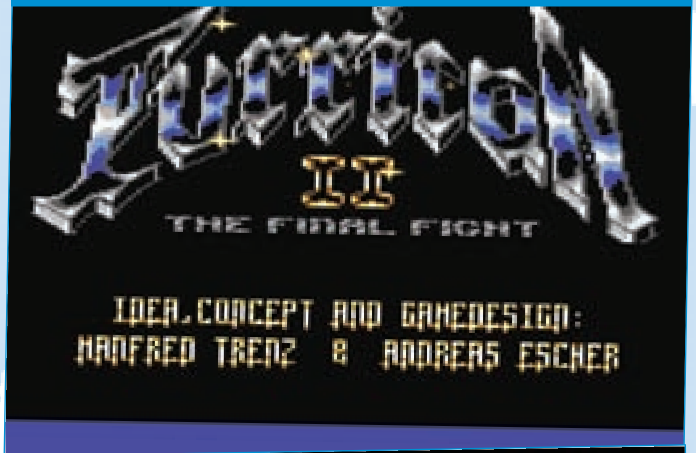
The original

The arsenal of weaponry available to the player in Turrican was really refreshing. You started off with a single laser shot and three energy walls, gyroscopes, grenades and mines. Your basic fire could be upgraded to a powerful beam laser and a multi-shot. By holding down fire you could also spew out a constant lightning flash, which could be rotated clockwise or anticlockwise in small steps of approximately 12° at a time. This meant you would have a 360° range of defence, which was especially handy when dealing with the huge guardians.

The guardians were another fresh point to the game. You'd usually expect to encounter a guardian at the end of each level, but after completing the first, you were almost instantly greeted by the mighty Fist. This awesome sight was the first of many treats uncovered as you progressed through the game.

With regard to exploration, Turrican contained 13 levels split into five worlds, and was made up of a total 1,300 screens. To prevent the game getting a little samey, levels 1-3 and 3-3 featured a vertically scrolling shoot-em-up section, which moved upwards and downwards respectively. There were also hidden bonus blocks for you to find, which would throw out upgrades for your armoury and the occasional extra life. Many other screens were hidden throughout the

When an early demo of Turrican 2 was released at a computer show in Cologne, two people were injured in the scramble to get a copy









game, requiring pixel-perfect jumps to find them or use of your gyroscope to reap extra lives, diamonds and other rewards.

Turrican had everything from the graphics to the sound effects, and the presentation to the gameplay – Manfred had single-handedly redefined the 8-bit platforming genre. But he wasn't about to stop there, as the end sequence suggested with its closing words: "THE END...??" But would the sequel live up to the now high expectations?

The Final Fight

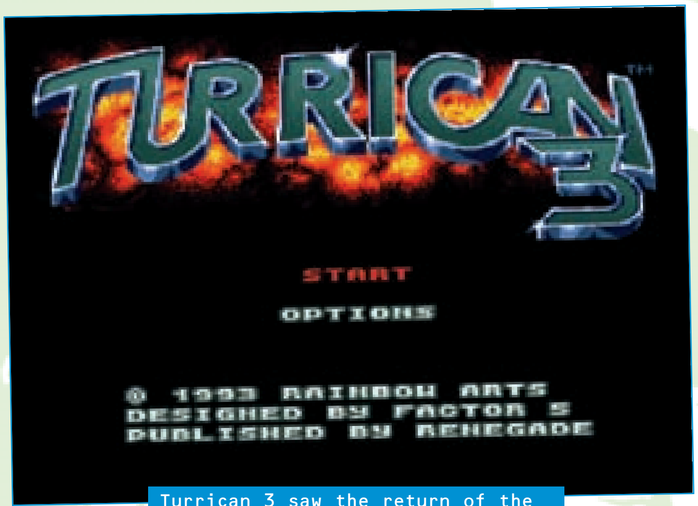
At a computer show in Cologne, 900 copies of a Turrican 2 demo were to be given out, but more people than expected rushed to get their hands on a copy. In the ensuing chaos, two people actually ended up with minor injuries. Anticipation for the sequel was evidently high.

Subtitled The Final Fight, the follow-up was released less than a year after the original, and started with a comic book-style introduction sequence, setting both the story and tone of the game. Unsurprisingly, Turrican 2 featured additional firepower, more screens and three traditionally styled shoot-em-up levels (this time horizontally-scrolling in the first, multidirectional in the second and super-fast parallax scrolling from left to right in the third). It was all very impressively implemented, especially when you consider the perceived limited technology of the C64.

Other innovations and changes were made to the sequel. This time your gyro-scopes could be used as often as you liked, and in this state you could unleash a timed smart bomb by pressing fire. The laser was now made up of five beams and the multi-shot fired in up to five directions at once, covering a 90˚ angle in front of you. A new and impressive weapon was also introduced, which deployed two bouncing bombs. These little destructive balls eliminated oncoming enemies on contact, and were perfect for clearing narrow paths above or below you.

Turrican 2 retained the intense playability and 'one more go' factor of the first game, and was bigger and better to boot, with many more secret screens to discover. On finishing the game, Manfred stated that Turrican 2 was his last game for the C64,





Turrican 3 saw the return of the Machine's evil minions





followed by the words: "This is definitely THE END". However, due to popular demand, 1992 saw the release of Enforcer: Fullmetal Megablast, a follow-up to his work on the game Katakis, which later (due to legalities) became Denaris.

Third degree

Although Manfred did release one more game for the C64, as a sort of testimonial if you like, Turrican 3 sadly never saw the light of day on the 8-bit machine. By 1992, the market was more than wavering in the UK, and many bigger publishers were turning to the new, super-powerful 16-bit technology. Turrican 3 on the Amiga was met with high expectations and great anticipation. The publisher even managed to charge a small fee for the pre-release demo disk.

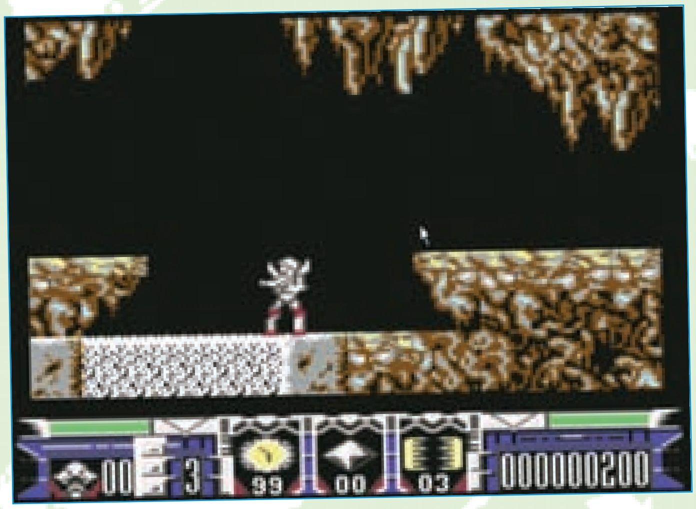
When released, the game seemed to somewhat tarnish the series though. Ever keen to innovate, the laser beam that featured in the first two games was dropped and replaced with an extendable Bionic Commando-style device, which would grab on to platforms and walls, allowing the player to swing to hard-to-reach places and progress through the level. Unfortunately, this was awkward and difficult to use, taking the edge off the gameplay.

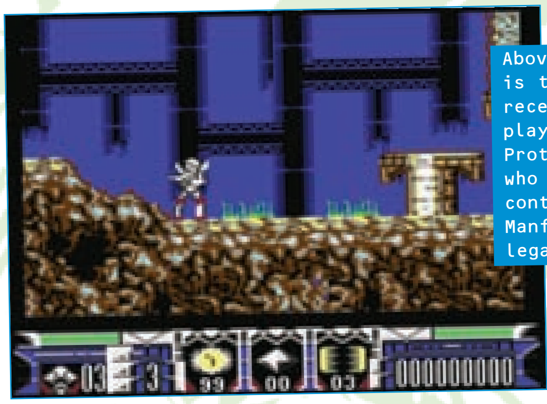
An underwater level was included and the game had some formidable bosses, but nothing made this release standout in the way the originals did. The graphics were a little dull and some of the levels were too small. Hidden areas were included, but the game simply didn't inspire you to look for them. Overall, Turrican 3 aimed high but plummeted into the ever-widening band of mediocrity. This was a great shame and left fans of the series wondering what Turrican 3 would have been like on the humble C64. But wait, Turrican 3 *is* on the C64, isn't it?



The saga continues

Manfred's work is held in high esteem in the European C64 scene (he's referred to as 'The Master' throughout Europe), particularly by coders and developers, and they are always looking to push the boundaries of the technology. After the release of Turrican 2 and before the publication of games that others such as Protovision and Smash Designs were developing, a demo called Scorpion found its way into the public domain. This Turrican clone featured a slightly different main character, but seemingly the same weaponry. Scorpion aimed to pick up where Turrican 2 left off, and although it didn't have anything to do with the great Trenz, it was a good enough preview and used the basic engine (even if some of the graphics were seemingly ripped out of the first two games and tweaked a little). Very little is known about this, other than its





Above and left is the most recent and playable T3 by Protovision, who planned to continue Manfred's legacy

name and obvious influences.

The Protovision boys then came up with T3, a game once again inspired by the originals. A fully playable level was designed and it even introduced a new drone weapon that would detach and fire in several directions (diagonally at all corners and left or right depending on which way you moved it). An improved sprite-handling routine meant there was very little or no flicker during play, and the levels were as large as those in the original titles. Other than the missing gyroscope, it played very much like Turrican 2, with nice SID music and sound effects to accompany it.

This looked to be the most promising of the unofficial sequels, and was reportedly 60% complete, but for several reasons it will never be finished. The pre-release demo version that Protovision presented at a scene party was stolen and cracked by a group called Laxity. This meant the guys behind T3 were unwilling to finish the game, so the whole production was left and almost forgotten about. Those who purchased Hockey Mania from Protovision will be able to play a complete level from the intended production, and see some of the other worlds whilst pondering what might have been.

The Return of Darkness

The most recent Turrican-based game is Turrican 3: Return of Darkness by AEG of Smash Designs. This slickly presented production has taken around seven years to complete and although it's unofficial (as you would expect), it's a fine tribute to the mighty Trenz himself.

This version initially looks very similar to Turrican 2, but has five new worlds to explore and new enemies to battle against. A graphically improved Fist returns and the bosses throughout the game are big, bad and awesome looking. The gyroscope can be used as often as you like, although it won't destroy any of the oncoming foe, and the weapons are identical to those in Turrican 2. You'll find a full review of this game in our Retro Review pages, so flick to the front of the mag for the verdict on the finished product. RG*

Interview

To celebrate the release of Return of Darkness, we spoke to AEG of Smash Designs about his take on Turrican

RG: When did you first become involved with the C64? Did you start learning to program right away, or were you more interested in game playing?

AEG: I started coding on the C64 in 1990. I was never a big gamer as I quickly became bored with games. I turned to creating demos very quickly.

RG: What inspired you to start working on Turrican 3, and how did people respond to the idea?

AEG: Turrican 2 was the inspiration to do part 3. How did people respond to it? Everyone wanted to see part 3, as did I, so I think they just liked the idea.

RG: Are you a big fan of all of Manfred's games, or just Turrican 1 and 2?

AEG: I really liked all of the games that Manfred did. He really has the right feeling for good game design. His games just work.

RG: Did you get any help or advice about Turrican 3 from Manfred or any other C64 coders?

AEG: No, I did all the coding by myself, and nearly all of the graphics were done by me. Manfred had nothing to do with this game.

RG: How tricky was it to implement in-game music? And do you think it is possible for any further improvements to made on what on what you have achieved?

AEG: It wasn't that hard to get music into the game during play – there were definitely other bigger problems. I'm sure it would be possible to create a better engine for worlds 1 and 2 now, but you always know that what you could have done better after the event.

RG: Will Turrican 3 be the last C64 game from Smash Designs, or do you have any future plans?

AEG: We definitely won't do a Turrican 4. At the moment Manfred and I are thinking about creating an official Katakis 2 together. This will be done if enough people are interested in such a game for the C64. The game will be full price at about 20-30 euros. If anyone is interested in seeing such a game done by Manfred and me, just send us an email to **aeg@smash-designs.de** with the subject 'Katakis 2'. For now, thank you all, and have fun playing Turrican 3.

Web resources

Turrican SETA

www.nemmelheim.de/turrican

At Turrican SETA you will find the latest news, rumours, downloads and facts about the great Turrican games, as well as remakes and unofficial sequels. Easily worth half an hour of your daily browsing time.

Smash Designs

www.smash-designs.de

Home of the group that released Turrican 3, the unofficial Turrican sequel for the Commodore 64 and emulators. Download your free copy from this site.

Turrican forever

http://turrican.emucamp.com

Once again, another website dedicated to Turrican, with links to the Manfred Trenz fan page and Bronko's Turrican page.

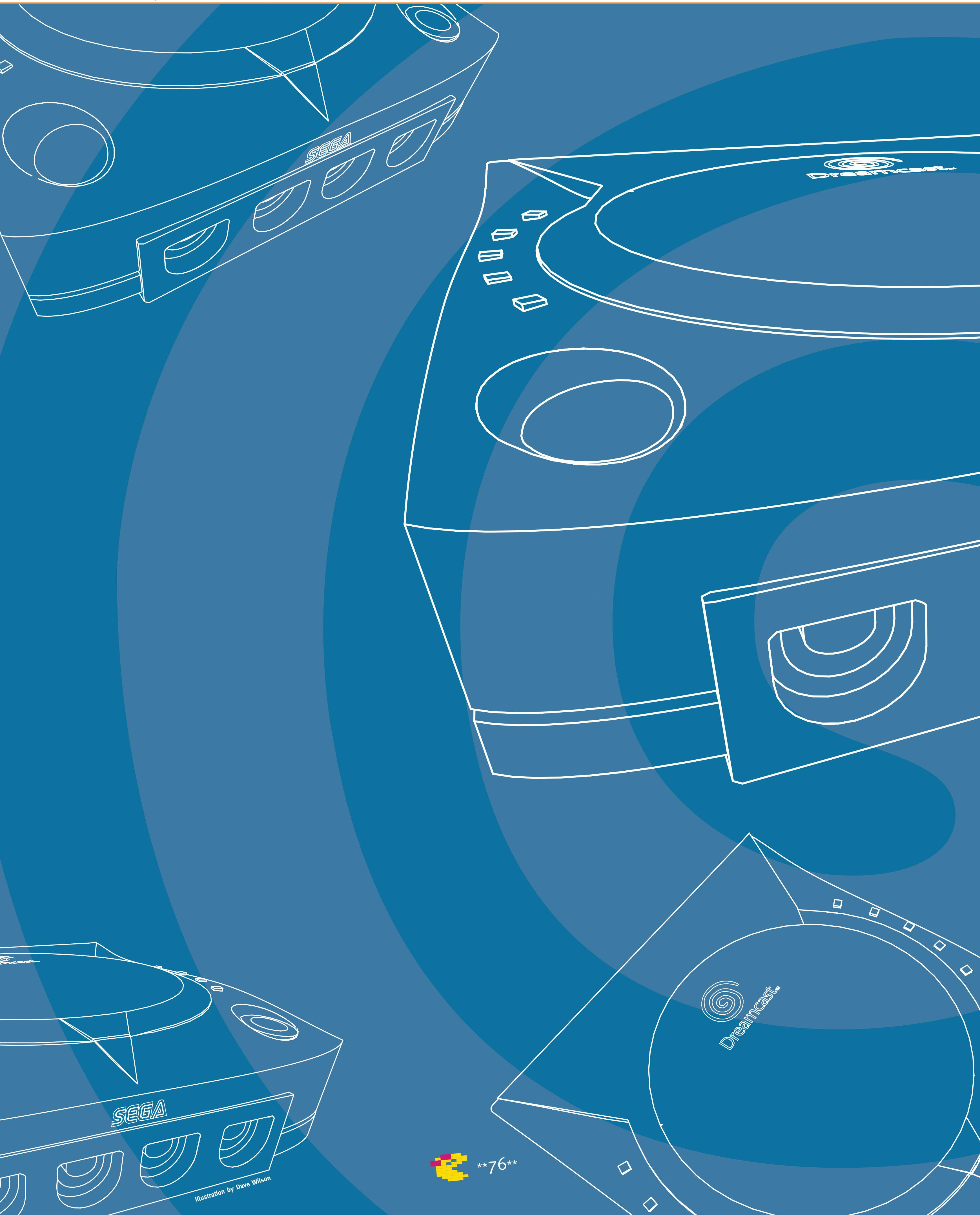
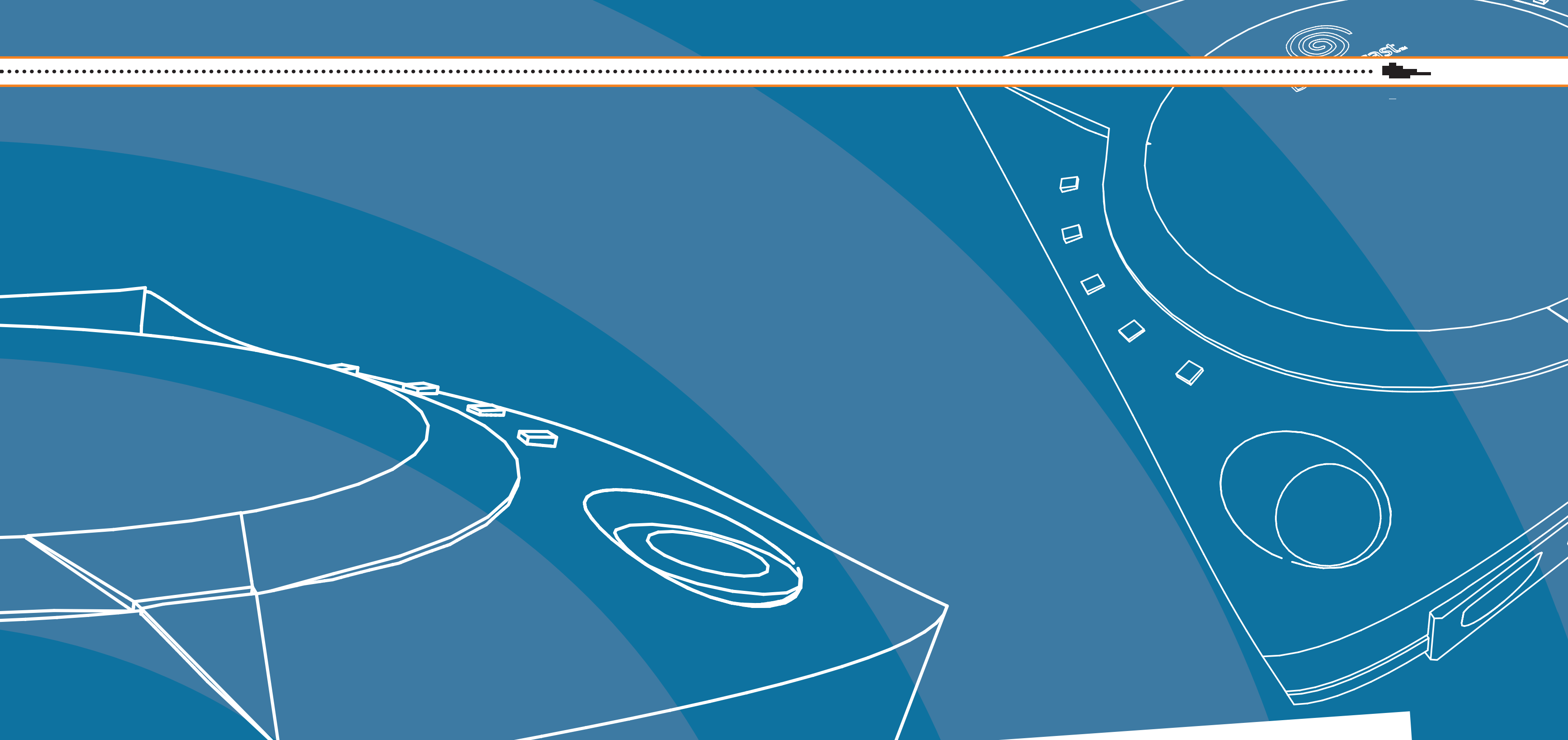


illustration by Dave Wilson



>Recurring Dream

It's five years since Sega launched the Dreamcast, and while it failed commercially against the twin might of the PlayStation consoles, the machine still attracts a hardcore following. To celebrate the Dreamcast's birthday, Retro Gamer looks both backwards and forwards – backwards to the very best Dreamcast games, and forwards to the console's bright future as a homebrew platform

We're not here to debate why the Dreamcast failed. It probably had something to do with Sega's past hardware failures with the Mega-CD and Saturn, causing buyers to lose faith and remain aboard the good ship PlayStation. Maybe it had something to do with Sega completely failing to promote the machine during Christmas 2000 when there were severe PlayStation 2 hardware shortages. Perhaps it was the console's copy protection flaw which allowed hackers to boot copied discs without a modchip, causing third-party developers to run a mile.

Okay, so Sega was largely to blame for the console's failure, but no-one can deny that the Dreamcast was an excellent piece of hardware. Some would say that there are currently no PS2 games that couldn't run happily on a Dreamcast. And with its built-in modem it opened up an era of online console gaming long before the launch of Xbox Live.

So is the Dreamcast the greatest console that ever failed? Without a doubt, and thanks to the machine's burgeoning homebrew scene, its legacy is set to live on. Look at the scene now and imagine it in five years time, ten years even. Dreamcast is on course to become *the* retro console of the future, and we're very excited about that prospect.



Keeping the dream alive

To get a grip on the Dreamcast scene, we've spoken at length to three of its key players. Wraggster runs www.dchomebrew.org and www.dcemu.co.uk, LyonHrt maintains www.dcevolution.net and Metafox is the webmaster of http://dreamon.cyberdogcastle.com

RG: When did you become involved in the Dreamcast scene?

Wraggster: I became involved in the Dreamcast scene as early as 2000. In September of that year, the DC Emulation.com site was born and I was one of the original members.

LyonHrt: It was October 2000, and I happened to stumble upon a SNES emulator, called Sintendo. I remember wasting quite a few CDRs on that emulator! But when I did get it working, I was very impressed.

Metafox: I've been interested in the Dreamcast scene since the very beginning. I was checking out the reverse engineering work being done by people such as Bitmaster, Dan Potter, and Marcus Comstedt on the dc-dev mailing list, though I never got into coding for the Dreamcast until 2002.

RG: What do you think draws people to the scene? Is it the emulators, or the ported games, or the demos?

Wraggster: I would say most people are drawn to the scene because of emulation, then that progresses into a love of all the demos, ported games (like Doom, Quake, Beats of Rage) and also software like the Divx players.

LyonHrt: For developers, it provides the chance to do home coding for a games console, with the support from the scene – mailing lists, community forums – regardless if you're a new or experienced coder.

RG: Why do you think the Dreamcast has such a vibrant homebrew scene, compared to that of other consoles (PlayStation 2, Xbox etc)?

LyonHrt: Well the big selling point has got to be that you can go out today and buy a Dreamcast, get home, burn software to a CDR and play it. No modifications, no special software – just an out of the box DC.

Metafox: The most important factor in this is the fact that the Dreamcast is the only optical media based console in which software can be created and distributed legally. Unlike the Xbox, Dreamcast software is not created with an illegally leaked development kit. The tools that coders use to make Dreamcast games are free to use, and are released under free software licenses. In short, everything that is done on the Dreamcast is done completely legally. This just isn't true of the other consoles.

RG: Which pieces of homebrew Dreamcast software have impressed you most?

Wraggster: The Super Nintendo emulators are the ones that I follow the most. DreamSnes and SuperFamicast are great emulators. SmashDC is a clone of the SmashTV games by MR Siggler and is one of the most impressive homebrew games. Trilinear's Echo's Quest is an excellent 3D platform game. Other impressive games include Giana's Return and Alice. But to be honest there's just so much to choose from.

LyonHrt: I guess my current favourite has got to be Beats of Rage, because I spent many hours playing Streets of Rage on the old Megadrive. And with the whole modding scene dedicated to it, if you start to get bored with it, you can just add one of the countless mods.
As for my favourite emulator, that would probably have to be Dreamsnes.

Metafox: For applications, I'd have to say DCDivx. No-one dreamed the Dreamcast would have enough power to pull it off. For emulators, I'd go with Gleam. It's not advanced by today's standards, but it was the first emulator released for the Dreamcast. For games, I'd choose SmashDC (very polished, and fun to play), Beats of Rage (incredibly professional, plus you can modify the game to your heart's content), and Revolver (a lightgun game that has graphics comparable to Sega's Model 2 arcade hardware – a must play).

RG: How important a part has KOS (KallistiOS) played in the growth of the scene?

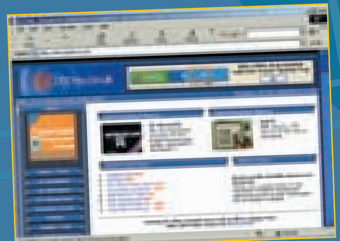
Wraggster: KOS is the main driving force behind the development side of the scene. It's the main reason we have been able to move into a legal scene with tools, Dev libaries etc. Dan Potter and the rest of the Cryptic Allusion team really are the heros of the Dreamcast scene.

Metafox: I truly believe the Dreamcast scene wouldn't still be here today if it wasn't for libdream (which became KOS). The only devkit available would have been the illegally leaked Sega Katana devkit, and the Microsoft WinCE devkit, and the bonus of creating software legally would have gone.

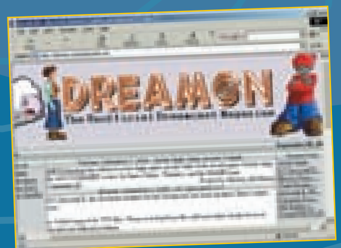
RG: What are you opinions of the Treamcast? Would you like to see more hardware mods of this type?

Wraggster: The Treamcast is a really neat piece of hardware especially if you're away from home or in the car. I think it's great that Hong Kong companies release hardware like this and

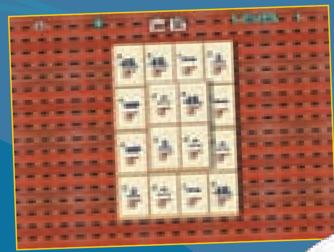


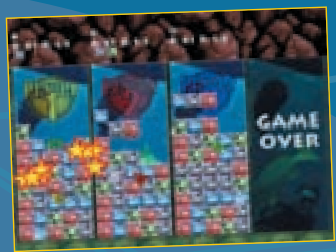


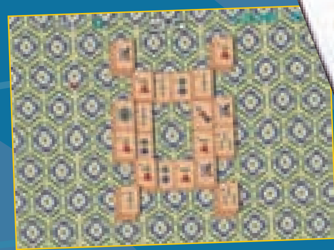












maybe we will see Treamcast consoles with built-in Broadband Adapters, VGA output etc.

Metafox: I love interesting gadgets such as these. I'm looking forward to the handheld Dreamcast that Benjamin Heckendorn (**www.benheck.com**) is creating, and I'd love to see more people make hardware modifications such as these.

RG: How do you see the Dreamcast scene developing over the next five or ten years?

Wraggster: In the long run I see a move away from emulation to more homegrown software and ports of commercial games like Quake. What would be nice if Sega itself became involved in our scene in some way (we can dream). I'd like to see Sega release its Dev libraries to the Public Domain to help us gain knowledge in areas we haven't reached yet.

LyonHrt: Right now the Dreamcast scene has never been busier and the homebrew games have never been more polished. With the release of an N64 emulator, a Saturn emulator and the practically full speed NeoCD emulator this year, I'm sure the future will bring more surprises.

Metafox: I definitely see more independent commercial software for Dreamcast developing. It's just starting, and a lot of neat projects are in the works. There are even some intriguing ideas being tossed around that may allow Dreamcast software to be released on major retail shelves again. It's an exciting time for Dreamcast, and I'm glad to be a part of it.

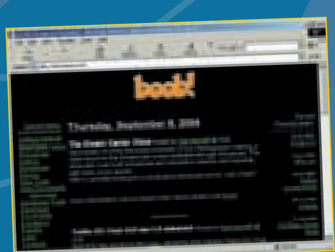
RG: What can we look forward to in the form of commercial software releases?

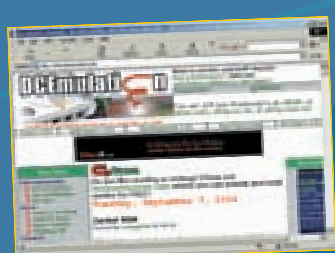
Wraggster: We have a competition on-going at the moment and the winners of that will see a commercial release by a company called the GOAT Store (**www.goatstore.com**) who specialise in retro games. We are also about to see a commercial release of Inhabitants and Maqiupai – two great looking games which were originally homebrew demos.

LyonHrt: There's a commercial Japanese shooter coming soon called Karugamo: XXX. It's by project-firestorm and is looking to take on Ikaruga.

RG: Which upcoming projects are you most looking forward to?

Wraggster: I'm looking forward to seeing the release of BlackAura's Quake Port and also his Basic Interpreter which should open many doors into the scene.







LyonHrt: I'm looking forward to the follow up to Beats of Rage. It's called Age of the Beast and has original graphics and sound, plus an improved game engine. I guess there's always surprises in the DC scene, so you can never really guess what's round the corner. Personally I'd be pretty happy with an Atari ST emulator.

Metafox: The GOAT Compilation first and foremost (a huge collection of arcade style games that includes both never-before-seen games and some fan favourites). Also, there are a lot of projects behind the scenes that the developers don't want revealed yet. There really are some major developments in progress, many of which I'm sure will shock and surprise you. Stay tuned.

>Treamcast



The Treamcast, an unofficial hardware mod originating from Hong Kong, is a seriously desirable piece of kit. Basically it's a Dreamcast with a built-in five inch monitor which fits snugly to the top of the machine. We're guessing that Treamcast is a contraction of 'Travel Dreamcast', because you can take the machine on journeys with you (the package includes a car cigarette adaptor).

Besides the screen (which incidentally is very clear despite the slight blurring associated with all TFT monitors), the Treamcast is essentially a Dreamcast. It supports all the same software and includes the AV Out port so you can plug it straight into a TV if you wish. In addition there's a remote control unit so you can easily playback VCDs, SVCDs and MP3s. The Treamcast comes complete with a couple of controllers, modelled on the six-button Megadrive pad, although they have no place to house a VMU so you'll probably want to stick with the standard Dreamcast controllers.

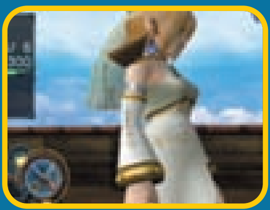
If you're interested in adding a Treamcast to your collection you can now order one from within the UK – much better than ordering from China and stumping up tax and handling changes. Visit **www.gbax.com** and you can pick up a Treamcast for around £150.

Ten of the Best

In the last five years many great games have been released for the Dreamcast. Trying to whittle it down to just ten was a task in itself, and it's obviously open to debate, but we're confident we've selected the very best titles

Skies Of Arcadia

This is without doubt the Dreamcast's Final Fantasy. Skies of Arcadia was a simply stunning RPG classic that mixed together a monumental story, larger than life characters, excellent RPG play and a setting that propelled it way above the competition. As the Blue Rouge, Vyse, you had to stop an ancient cataclysm befalling the world of Arcadia. Teamed up with your close friends Aika and Fina, as well as an extended and memorable cast, you had to sail around the skies doing battle with monsters in true Final Fantasy style, and even waging war in epic ship-to-ship confrontations.



The random encounters were a little too regular for many people's liking, but this was the only real glitch in an otherwise perfect adventure. There are simply too many reasons why this is a classic, just take our word for it. RPG gold.

Shenmue II

The adventures of Ryo Hazuki continued in this stunning sequel. Taking everything that the first instalment introduced, and then adding double, the second title surpassed the original in almost every way. The game was longer, there was much more combat, more mini games, a larger game world (spread over several locations), and in a genius decision (or forced choice due to lack of funding), the original Japanese speech was left intact, ditching the American voiceovers for a more authentic feel.

Shenmue II was packed with cinematic events that simply instilled a sense of awe. The handcuffed chase through Kowloon springs to mind as one of the best gaming moments ever, in our humble opinion. Even if you got bored of the game itself, you could visit the arcade and play retro classics including OutRun and Afterburner. What more could you want?



Virtua Tennis 2

There are few sports as difficult to translate into a digital form as tennis, and there have been many dreadful attempts in the past that can attest to this. Sega however, got it dead on the money with Virtua Tennis, and then went and did it again with this second outing. Titled Sega Sports Tennis 2K2 in the States, Virtua Tennis 2 is quite simply the best tennis game we've ever played, with perhaps only the recent Top Spin coming close to Sega's beauty. Not only does the game look fantastic, but the nigh-on perfect controls are the real reason why the game shines on to this day. Anyone can pick the game up and play it, yet it still takes a long time to master. Add to this the extensive world tour mode, reams of excellent mini games and a multiplayer experience to die for and you've got a sporting legend.



Jet Set Radio

Okay, so cell shading can be seen all over the place these days, with great games such as XIII bearing the distinctive graphical style, but it's here where it all started. Jet Set Radio (Jet Grind Radio elsewhere) simply couldn't fail to drop jaws the world over when it was released, and never before had we seen such a visual treat. Luckily the eye candy wasn't just for show, as the game was also superb. Taking the extreme sports games to the, er, extreme, you took on the roles of various rollerblading graffiti jockeys and had to 'tag' your way through the city in order to stop an evil corporation. The soundtrack was booming, the challenge was steep and the style never let up. You could even design your own graffiti online and import it into the game! This could be one of the most stylish game ever devised.



Sonic Adventure 2

The first Sonic Adventure was little more than a technical demo (and a buggy technical demo at that), but it wasn't long before Sega gave its beloved mascot the time and attention he deserved, and this was the result. Sonic Adventure 2 was just plain, unadulterated fun. The presentation was flawless, the graphics scorched your eyeballs and everything pelted along at a pace that only Sonic could keep up with. This was the first time a 3D Sonic game actually worked (aside from Sonic R on the Saturn), and successfully captured the classic Sonic gameplay.

Once again Sonic was up against the Eggman himself, who was joined by an evil version of the speedy blue guy. Locations spanned the globe (and even space), and the all-important level design was absolutely spot on (another thing missing from the original Sonic Adventure).



Resident Evil: Code Veronica

The Resident Evil series may have floundered after RE2 with the third game being a disappointment for many. But there was light at the end of the tunnel for Capcom's living dead epic.

Dreamcast owners were promised an exclusive survival horror episode, and with Code Veronica, boy did they get it! This was Resident Evil like never before. Not only did the game move out of Racoon City, but the graphics were given a dose of the T-Virus, mutating from the blocky originals into a visually amazing form. As Claire Redfield, you were once again on the trail of Chris, and on your travels ended up a prisoner of the Umbrella Corporation. Lots of zombie-splatting and experiments-gone-wrong soon ensued, and we even witnessed the surprise reappearance of Albert Wesker from the original game.



Soul Calibur

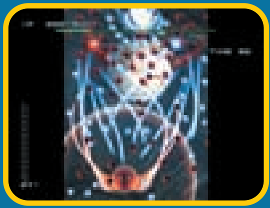
Namco certainly knows how to have a damn good scrap, and the Tekken series of games is still going strong today. Partnering the flagship knuckle fest is Soul Calibur, a game that brought a bucketload of knives, sword and shivs to the fist fight, and came out laughing. Visually, Soul Calibur was superb, and the character animation and movements were incredibly lifelike. But, looks were nothing when compared with the deep tactical battles you could take part in. Mastering your chosen combatant was a must if you wanted to beat your mates at this game, and no amount of lucky button-bashing could compete with a master of his or her chosen character (try beating a Kilik expert if you dare!). The Edge Master Mode improved the game's longevity even more, creating what is easily one of the greatest 3D fighters around.



Ikaruga

Treasure is a developer that demands the respect of game players everywhere. No matter what system it makes games for, it produces classics every time. Not only classic, but actual, real original content too! The Megadrive had Gunstar Heroes, the Saturn had Guardian Heroes, and The Dreamcast received Ikaruga, a scrolling-shooter with, shock horror – originality!

But how was it different? Well, your ship could turn either black or white and the enemy fired black and white projectiles at you. Turn black and you could absorb black bullets, and vice versa. This simple idea was enough to create a scrolling shooter that blew you away. Ikaruga was also hard, earning you immeasurable amounts of kudos from your mates if you mastered it. As retro as they come, but still looking great.



Powerstone

Ask any DC owner about their favourite games and Capcom's cartoon battler will be on their list. Powerstone was a charming fighter that wasn't afraid to challenge the norm when it came to computer-generated fisticuffs. Fighting within various detailed arenas, combatants could kick and punch their way through the opposition as well as use a range of weaponry to gain the upper hand. The play was fast, furious and addictive, really coming into its own when played against others.

More of a party game than anything else, Powerstone was just pure fun. It had no pretences, and didn't aim to be anything more than an enjoyable battler. While the original was a strictly two-player affair (Powerstone 2 featured battles with four-players), it's this version that most people prefer.



Phantasy Star Online

British Telecom must have loved Sega when PSO arrived, and the average household phone bill quadrupled overnight. Long before the likes of Xbox Live, or PS2 Online, the DC was pioneering the online console world with this, the first ever online console RPG. Phantasy Star Online was digital crack, plain and simple. Once you created your avatar and logged into one of the many online communities you were hooked. It didn't take long to make friends. Forming your own groups, and the never-ending quest to level up, find rare items and battle the endless armies of nasties kept you at your TV screen for unhealthy periods of time. The game was improved even more later on with the arrival of PSO V2, but sadly, this was one of the last releases we Europeans ever saw on the DC, meaning that PSO V2 didn't get the exposure it deserved.



eMag



>The Mythical Mount Drash

Ultima: Escape from Mount Drash. Five words liable to make a lot of people froth at the mouth. But why? And how? And despite all the fervour for this VIC-20 game, why have most people only heard of it due to a certain eBay auction several months ago? Mat Allen owns a copy of this illusive title, making him the perfect man to answer these questions

When Richard Garriott created the Ultima world on the Apple II back in 1981, he probably had no idea where and how far one series would go in the future. For those Ultima aficionados out there, most will know that the release which really set the base work for Ultima was the homemade production of Akalabeth, a game sold by Garriott in the computer shop he worked for at the time. One person who also worked on Akalabeth was Garriott's friend Keith Zabalaoui, and this is where the tale of Escape from Mount Drash comes in.





It exists! The Mount Drash packaging and cassette tape, before your very eyes

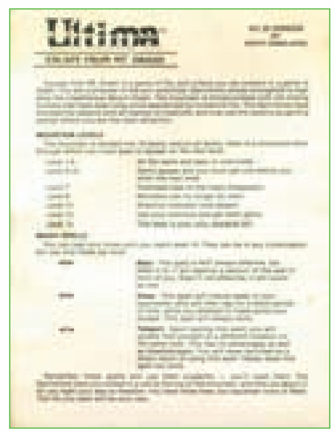
Fact or fable?

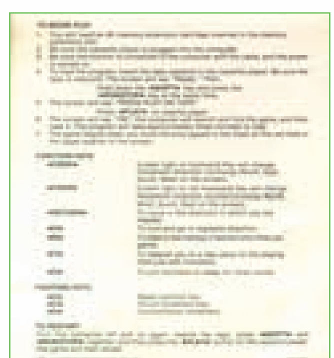
There is not a vast amount of information surrounding Mount Drash, mainly because for years it was considered vapourware (a term for software that *may* exist but hasn't been discovered) and partially because anyone involved was not talking about it. While it would have been great to have Mr Zabalaoui's viewpoint for this article, it is known that he isn't partial to talking about it, probably because it is often the main focal point of questions asked of him.

Keith Zabalaoui is currently head of Atomic Games in Houston, makers of the Close Combat and V for Victory series. You can understand his irritation when you are producing successful and highly rated software for the PC, yet all most people want to ask him about is a 20-year-old computer game on a long-dead system. Such is the legacy that the interest in old videogames produces.

In all that has been said about the game over the last two decades, the following facts are certain. After Akalabeth, Garriott founded Origin and produced Ultima I for the Apple II computer, which was published by Sierra Online. Its sequel, published under the SierraVenture label, was another game that Keith worked on with Garriott. It was this connection that led Sierra in 1983 to offer Keith the opportunity to write his own game and have it published under the SierraVenture label, which was known at the time for adventure releases such as Cranston Manor and Mystery House, and all of Sierra's VIC-20 cartridge games. The resulting maze game was written in Basic for the VIC-20.

The game had no connection with the Ultima series at all until Sierra stepped in. With the success of Ultima, Sierra felt it would be better promoted and sold if it had that name attached to it. So that is what happened. The artwork on the box is the same as an early




Scans of the instruction manual supplied with the game



The game in action. Explore the mines of Mount Drash and defeat its vile inhabitants

Apple II release of Ultima I, and as Garriott had already left Sierra to set up Origin as a separate publishing entity, he had no idea that any of this had occurred until years later. If you are wondering why Sierra was allowed to do this, it's because they still owned the copyright to Ultima then – Garriott took it back for himself sometime shortly thereafter. The only true connection the game has to the Ultima series is in the place mentioned in the title. Mount Drash was a mountain in the land of Sosaria within the Ultima realm.

All well and good, you may think. Except that even with the Ultima moniker attached to it, Sierra was still not confident that Mount Drash would do well. Rumour suggests that it denied the game even existed at some point after its release. One advert was run in 1983 and that was about it. People reported never seeing it in the shops and it's still unknown just how many copies were produced, let alone sold. Best guestimates put the production run at around 3,000 copies, with the number of actual sales possibly as low as 500 copies. Probably just enough to recoup costs and pay Keith Zabalaoui for his time and effort.

Bidding wars

Until Zabalaoui himself was tracked down in the late 90s, it still wasn't certain whether the game had been released. Nobody on the Usenet groups had come across a copy at that point, so when some copies finally did show up, there was much rejoicing. Ultima fan 'FortranDragon' finally got his copy after three years of constant searching. Sometimes truth is stranger than fiction however. One other known copy was reportedly found at the foot of a cliff – apparently a retailer had dumped some unsold stock off the top of it and some good old junk-hunting skills found a copy within the resultant mess at the bottom.

So you could count the number of known copies on the paw of a three-toed sloth and still have some left over. And then the inevitable happened: after eight years of its existence being confirmed (September 2003 to be precise), a copy finally appeared on eBay. Even something as simple as an eBay auction can have a modicum of slapstick behind it. The seller, whilst negotiating with a buyer, accidentally listed the game within a bundle of other VIC-20 games he was selling. Cue mass panic and copious emails to the seller asking him to end the auction and sell the game privately. In the end the game was solely offered within the domain of eBay and after the dust settled, finished at a price of US$865. Yours truly was runner-up, thwarted at the last.

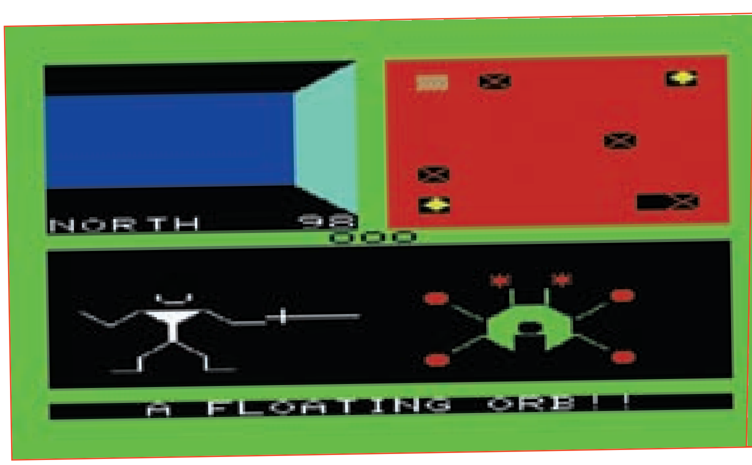
Just after Christmas, another loose copy appeared on eBay. Bidding was once again tight and competitive, though presumably due to the spending blues of Yuletide, it finished US$100 down on the previous price, with yours truly again a runner-up in the auction. With another collector sourcing a complete copy in-between the auctions, you needed more than one hand to count the number of known copies. Give people enough incentive, and sooner or later, the supply will steadily keep coming.

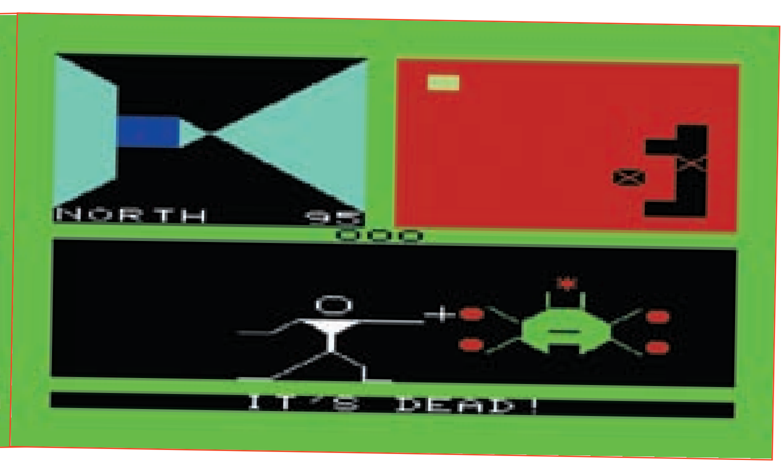
And then FortranDragon decided to sell his complete copy on eBay in March 2004. The bar had not only been raised, it was about to be completely blown away. This is when knowledge of Mount Drash was about to hit the general gaming collective in a way no one ever thought possible. Although the final price of US$3,605 is by far and away the highest value a piece of computer software has ever sold for, it pales in comparison with some console titles, mainly NeoGeo releases. The winner, Peter Olafson, has been amply described as a man on a mission to collect a copy of every game ever released and with the financial clout to back it up. Guess no one was going to stand in his way. Not even this writer, who once again was the runner-up! Despite the incredibly high price, there were relatively few bidders.

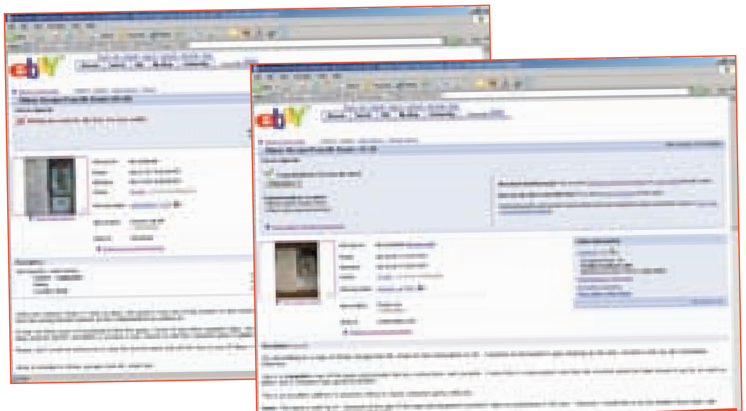
The following month another complete copy appeared on eBay. It was a veritable banquet! The box wasn't in as good condition, and probably some people got scared off bidding because of the end price of the previous auction. It finished at US$2,650, almost a grand down on the previous auction. And yes, this writer finally had his own copy to take away, love, caress and care for.

Could things get any more bizarre? Definitely. Only two weeks hence another loose copy of the game appeared on eBay, swiftly followed by another copy the next day! One seller pulled his auction in light of the competition and listed it again once the other copy had run its course. Both didn't reach the dizzy heights the previous loose copies had gone for, but it was still several hundred dollars each.

Since then, nothing more. It all made for a grand total of six copies in the space of less than a







The game has sparked several bidding frenzies on eBay. One copy went for about £2,000!

year. Despite this, the game remains part of a unique group of software whose known copies are in single figures. It may not be as highly desired as, say, Air Raid or Eli's Ladder on the Atari 2600, or as valuable as Kizuna Encounter Europe on the NeoGeo, but it is certainly one of the most interesting of the lot.

All the known owners are understandably cautious about letting information about the game into the general public. Like any high-value item, photos and records of originals are watermarked as they could easily be taken and used in false sales and auctions. Likewise, digital backups of the game in TAP format could be transferred back to tape and used to create false copies. There are always people out there looking to con others, especially now eBay is such a large part of the online buying and selling community.

Play the game

After all that, I bet you're wondering what the game is like and how it plays. As stated above, it is written purely in Basic and requires an 8Kb memory expansion. The plot is fairly straightforward: you have been captured by the evil Garrintrots and held prisoner within the stronghold atop Mount Drash. There they have seen fit to release you into the mining tunnels below (where dangerous monsters lurk around every corner) to see if you are strong enough to survive. There are 15 levels standing between you and freedom.

Sounds simple doesn't it? The game is presented in the traditional 8-bit 3D manner, with keys for rotating and moving forward as later employed by such classics as The Bard's Tale. An overhead view of the map is presented which opens up the more you explore each level. Also marked are the positions of the roaming monsters, meaning there is some chance to avoid them instead of being surprised into a fight everywhere you turn.

Outside of combat, there is the ability to use three spells, but each can only be cast once per level. Blast allows the removal of a wall section enabling a shortcut path to be created. Sleep makes the monsters snooze for a short number of moves allowing for a possible getaway. And Teleport puts you in a different location in the maze to before. All useful and definitely needed in the later levels.

Should a fight occur between yourself and a monster, then it's melee combat in the good old Errol Flynn fashion. Each monster has a specific weak point, and you must parry and thrust your sword at the correct moment to defeat it. Failure results in the loss of one of your lives. And with only three lives to carry through the entire game, the monster isn't going to be easy to beat. Especially when certain impediments are introduced, such as having to find and collect a gem before you can exit or the positions of the monsters disappear.

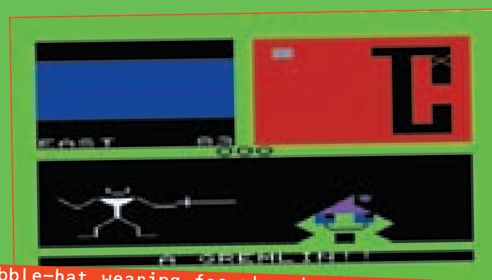
So that is Escape from Mount Drash in a nutshell. Highly desired, highly coveted, and unusually for an ultra-rare game, a semi-decent play experience. It remains to be seen after this flurry of activity whether any more decide to surface soon, or if it will take a gap of several more years before it appears once again. RG*

>Monster squad

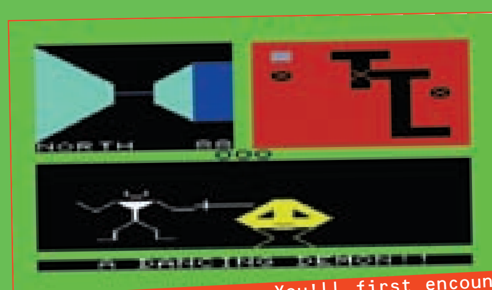
Some of the monsters found lurking in the mining tunnels beneath Mount Drash...



Floating Orb – This spiky nasty is encountered from the first level onwards



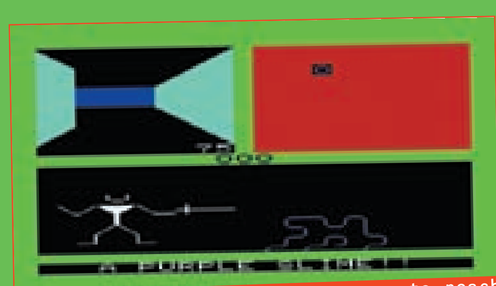
Gremlin – A bobble-hat wearing foe who also inhabits the early levels



Dancing Demon – You'll first encounter this bopping imp on level three



Phantom – This sock monster springs to life on level five



Purple Slime – If you manage to reach level eight then be careful where you tread

eMag





>Golden Years

Blitzing the scene with great original games, such as Paradroid, Uridium and Quazatron, and maintaining this momentum with classy arcade conversions including Flying Shark, Super Off Road and Rainbow Islands, Graftgold enjoyed 15 years as a highly respected software developer. To tie in with this month's coverdisc collection, Graftgold founder Steve Turner charts the complete history of his celebrated company

I started out as ST Software when Hewson Consultants agreed to publish 3D Spacewars – a shoot-em-up for the Spectrum. While the gameplay was inspired by Space Invaders, I wanted to use 3D graphics, similar to those seen in early 3D maze games on the ZX81. I wrote the game code in about three months during the evenings. My first few games were written without an assembler. I wrote the code first on paper then coded it by hand to the hex equivalent using a few look-up tables. I typed the code in REM statements, then my own hex loader loaded the code into RAM and replaced all the labels with relative or absolute addresses. Graphics were drawn on squared paper and coded into hex for loading in a similar manner. The whole process was error prone and long winded. When I look back it's amazing how I ever finished a single game!



The guys from Graftgold – Steve Turner (left) and Andrew Braybrook, back in the day

Hard graft

I left a steady job as a commercial programmer, so I already had a great deal of experience in languages such as COBOL and IBM Assembler. I worked in my dining room at home using a Spectrum and a black & white television, and I was determined to keep to a regular pattern of work – starting religiously at 9am and ending at 5pm. Working at home was a lonely experience, so I asked Andrew Braybrook, a friend, to join me. This was quite a risk, because I had saved about £10,000 before I left work so I knew I would be able to survive. Taking on an employee meant that we would have to earn royalties from our games within the first year.

Andrew had a similar history to me. He was a commercial programmer at Marconi and had programmed several games on an IBM mainframe. He began by converting my early Spectrum games to the Dragon 64. This turned out to be a disaster because despite being an excellent machine, the Dragon stopped being produced. Sales of Dragon games almost immediately ceased, with only a few hundred of each game sold. This taught us an early lesson: it was essential to back the right machine. But this was no easy thing to do as new games machines were appearing all the time and it was hard to predict which ones would survive. Andrew moved on to the Commodore 64 since this seemed to be gathering momentum as a games machine, despite Commodore's best efforts to disguise it as a business machine.

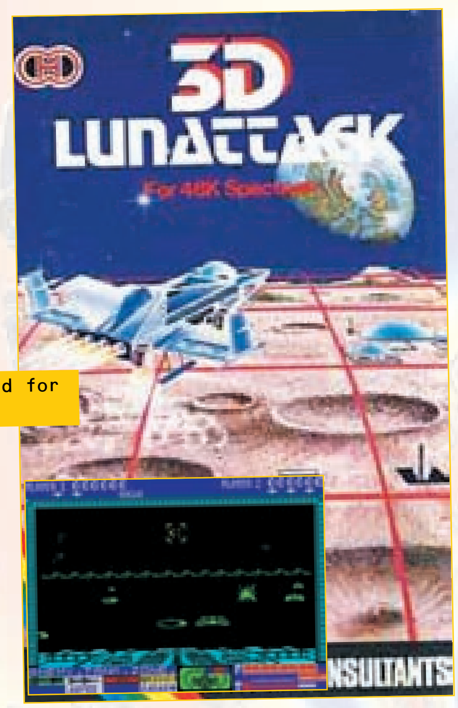
Andrew had the benefit of an assembler program on both the Dragon and C64. He wrote a graphics editor on the Dragon that allowed us to convert graphics into hex code automatically. We still had to key the hex in by hand but it was a huge leap forward. I still could not find a Spectrum assembler that allowed large games to be input, so I improved my own development system by adding a disassembler. Then at least I could get a listing of my program for debug purposes.

We each had a decent printer and would print off our entire programs, amending these listings by hand until they were messy and then print off another. Debugging was done with a clever routine Andrew wrote called Abmon. It enabled us to select any memory address and examine its contents or change them while the game was running. We could tune up gameplay while we played. Assembling a program could take ages, so the ability to change things as the game was running speeded up the process. It also helped in debugging.

On the Spectrum, programs were stored on cassette tape. I used a cycle of five tapes. This was necessary as often tapes would not read in properly, and ensured at least five previous versions were kept. I bought some Sinclair Microdrives when they came out but they were less reliable than tapes. One of the problems with the Spectrum was that it was more like a toy. Peripherals were supplied by many manufacturers which often conflicted. Many had to be slotted onto the Spectrum's main board at the back. With a few of these devices piggybacked onto each other the machine was unstable; hit the keyboard too

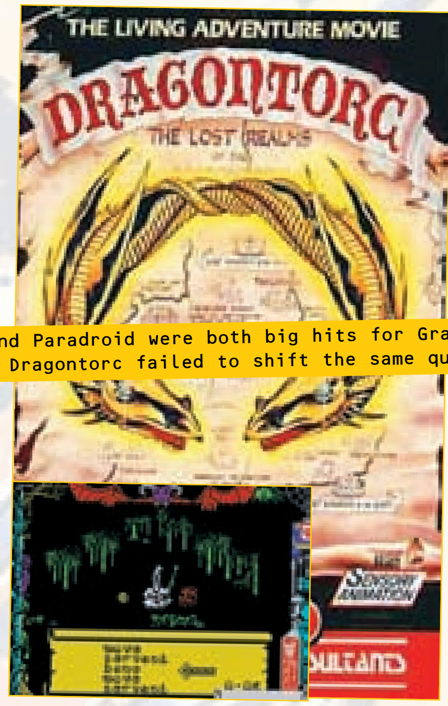


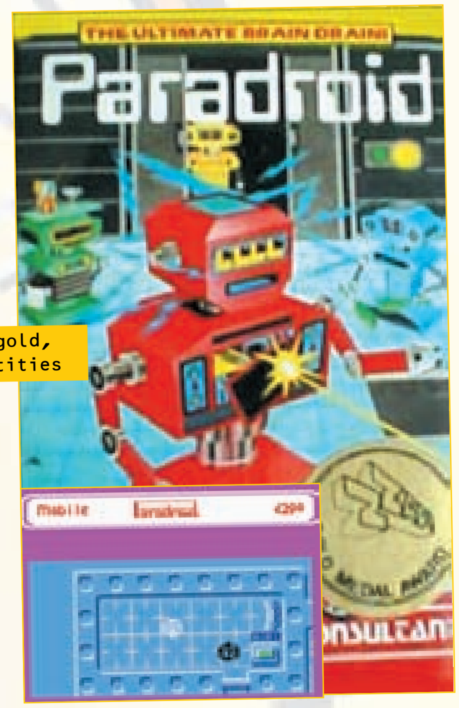




Steve's early Spectrum games were fairly advanced for the time, featuring impressive 3D visuals







Avalon and Paradroid were both big hits for Graftgold, although Dragontorc failed to shift the same quantities

hard and it would jog the machine, causing it to crash and lose everything inside. I eventually bought a Beta drive, but the software for the disassembler, printer and disk drives were all incompatible. I had to reverse engineer the object code and connect the programs together. This system engineering could take as long as writing a game, but once done, speeded things up considerably.

Help from Hewson

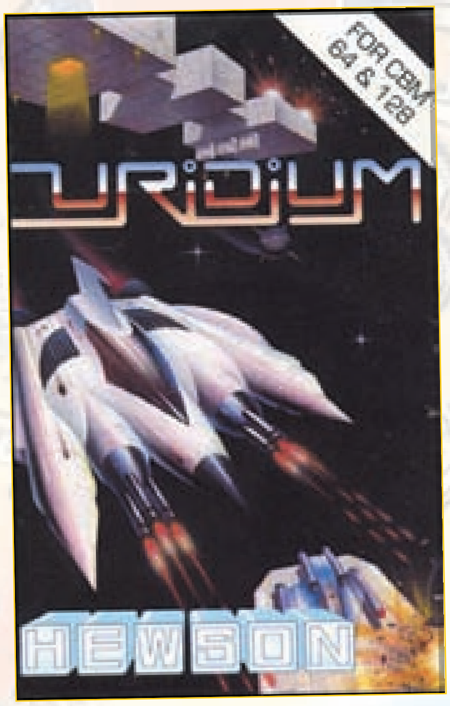
In the early days we used to visit Hewson every few months to show Andrew Hewson our latest offerings. He was a small independent publisher with an edge over other publishers because he had his own tape duplication facility, enabling him to respond rapidly to demand and produce low-volume original product. He supported many independent developers like us. We would develop a game and he would market it. This division of responsibility worked well until the exponential cost of developing games required a large upfront investment by publishers.

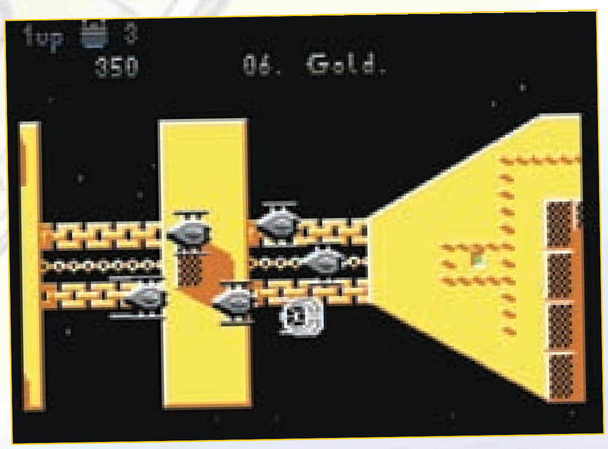
Without cash upfront there was no guarantee that a developer would get its game published successfully. With Hewson we never used to ask for advances. This meant we were under no obligation to produce anything, and it gave us complete creative freedom. As long as Hewson published our games to our satisfaction, it worked out fine.

I formed Graftgold Ltd when royalties from Hewson started to rise. The idea was to keep the royalties in the limited company to finance future games and pay us a steady wage. Graftgold was immediately successful with its first two games: Avalon and Paradroid. At last Andrew's games were selling in quantity. Ports to other platforms were not done by Graftgold as it was decided that it was best to keep generating new products. Hewson found other developers to provide conversions, but this was slow to get underway and it was not until Dragontorc and Uridium that successes were exploited on other platforms. Looking back this was a mistake. The games market was quickly becoming a commercial industry. Heavily marketed titles that had a licensed name were regularly charting higher than original product, despite often being poorer games.

The C64 and Spectrum dominated the sales charts, but the new Amiga and Atari ST machines were launched. Sales were initially poor but magazines gave more and more space to the new 16-bit graphics. We were keen to move onto the new machines, but smaller publishers such as Hewson were reluctant to move on until the market was established. We were then asked to produce budget games by Hewson. As budget titles vastly undercut the price of standard games, the only way to make them pay was to sell 100,000 copies or be able to produce a title every four weeks. The formula didn't work.

On the Spectrum we were still enjoying success but every title seemed to sell less than the previous one: an ominous sign as they were taking longer to produce. The public expected the





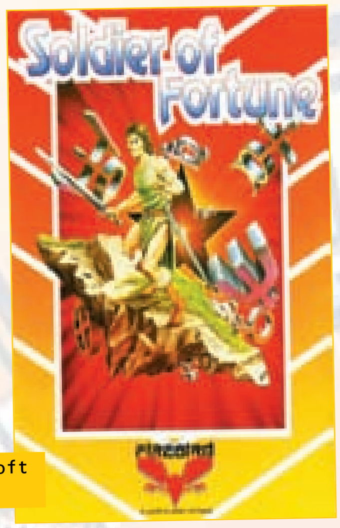
Uridium was one of Graftgold's first titles to perform well on several platforms

machine to be taken to the limits and beyond. Graphics routines were constantly rewritten to squeeze extra performance from the machine. After the release of Dragontorc I decided to leave the final part of the trilogy until later as sales were far below those of Avalon. I opted for Astroclone instead – a space game which I considered to be one of my finest designs, integrating strategy and shoot-em-up elements with some adventure sequences I was very proud of. But the product was misunderstood because it did not fit into a neat category.

I came back with Quazatron which borrowed gameplay from Paradroid and married this with a graphics engine I had no game for. Ranarama followed, which again used ideas from Paradroid but in a magical context. Unfortunately by this time, there were about four top-down dungeon-type games on the market. Despite being regarded as the best in a comparative review of all these games, the game was not successful in the UK (although it did well in Spain). Hewson, however, agreed to convert the game to the Atari ST as an experiment. The conversion was a copy of the Amstrad version and did not exploit the features of the ST very well, despite John Cumming (a Hewson in-house programmer) giving the conversion a facelift by adding some 16-bit graphics. The conversion taught us that you cannot just port a game to another machine – you have to consider the new platform and exploit its features. When Graftgold undertook its own conversions, we did not make the same mistake.







Three titles published by Telecomsoft under its popular Firebird brand

Telecomsoft calls

We were working on Magnetron, a follow-up to Quazatron, when we heard that Hewson was in trouble. Two of its programmers, John Cumming and Dominic Robinson, had decided to leave, thinking the company was finished. They rang me up and asked if I was interested in employing them. I agreed and Graftgold thus doubled its size and moved to its first offices above a greengrocer's in Witham. Debbie Silletoe, Hewson's second in command, left Hewson to join Telecomsoft. She warned us that Hewson was falling apart fast and introduced us to Telecomsoft.

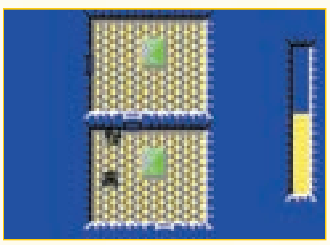
We decided to let Telecomsoft publish our games. Hewson managed to survive and challenged us for the right to publish the two existing games. As Hewson had not paid us any advances or given us a contract, we felt we had the right to change publisher. A court case followed, which for a time prevented publication, but generally did no one any good. Eventually, Telecomsoft and Hewson agreed to settle out of court, and Telecomsoft was allowed to publish the games. Later it contracted Graftgold to convert Taito's arcade game Flying Shark to the Spectrum and Amstrad. Dominic Robinson did a superb job in creating the Spectrum version in six weeks, with John Cumming handling the graphics. I then had just 14 days to convert the Spectrum version to the Amstrad!

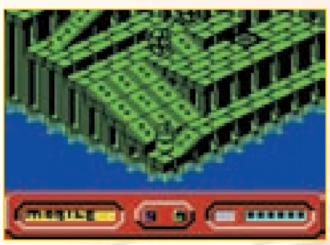
Telecomsoft wanted to finance Graftgold's growth and specifically wanted Graftgold to start work on the 16-bit machines. But after a few months it expressed a need for Spectrum and C64 games, so programmers Gary Foreman and David O'Connor were hired. Jason Page was also taken on as a trainee and soon produced all Graftgold's sound and music. Dominic started work on the Atari Jaguar and the Amiga, producing some stunning demos. These evolved into Graftgold's 16-bit operating system kernel and the 3D game Simulcra.

By the time Intensity and Soldier of Fortune were finished, Telecomsoft did not seem to have any more interest in original 8-bit product. Dismal sales followed and Telecomsoft was bought by Microprose. This was a good move as far as Graftgold was concerned, since Paul Hibbard and Pete Morley, two key players at Telecomsoft, had moved to Microprose. They sponsored Graftgold's entry into the 16-bit market and Simulcra was soon finished. But being Graftgold's only 3D programmer, Dominic became disillusioned and burnt out, so I finished Simulcra off, redesigning the gameplay to fully utilise Dominic's excellent 3D engine. The game received excellent reviews and could have been a massive hit if properly funded in the early stages.

Port to port

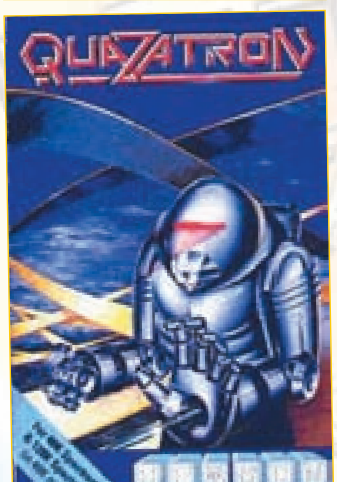
Graftgold's biggest success with Telecomsoft was the home conversion of Taito's Rainbow Islands. Using Dominic's 16-bit engine, Andrew masterminded a superb conversion. David programmed the Spectrum version and Gary the C64 version, establishing Graftgold as a master conversion house. However, Microprose bought the game before it was published and fell into dispute with Taito. Thus it was Ocean that finally published the game.







A great game, but Ranarama lost out to the likes of Druid and Dandy

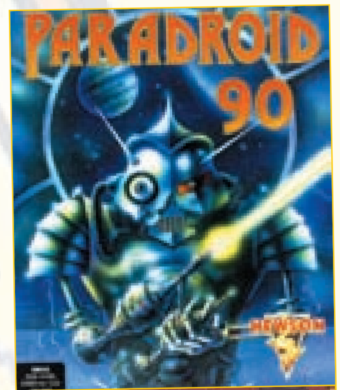


Starring KLP2, Quazatron was one of Graftgold's best-loved titles



Flying Shark for the Spectrum was Graftgold's first experience of a commercial conversion







Paradroid 90, the long-awaited 16-bit sequel to Andrew Braybrook's earlier hit

Although everyone at Graftgold could program, it was clear that specialists were needed to achieve the best products. Developing a game had become a team effort. Graftgold took on Michael Field, another artist who excelled in pixel art. He had tremendous patience and would painstakingly build up detailed bitmaps pixel by pixel. He worked with Andrew on Paradroid 90.

Graftgold had gradually re-established relations with Hewson and had provided music and graphics for various products. Paradroid 90 was also to be the company's first venture into the ever-growing console market. Gary Foreman developed a PC Engine version, but unfortunately it was not to be. Hewson foundered again and this time went into liquidation, selling Paradroid 90's publication rights to Activision. Graftgold was already developing Realms, a 3D strategy game, for Activision, so it was bleak when we heard that Activision was closing down its operation. Those were desperate times but such was our reputation that help was already at hand.

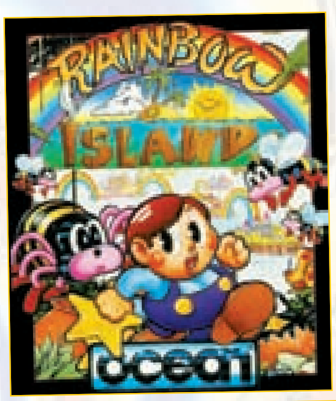
Graftgold had developed both 8-bit and 16-bit conversions of Super Off Road for Virgin. The conversion business was providing bread and butter funding for Graftgold. Original product was becoming increasingly expensive and risky to develop, and publishers were not keen on investing in original product unless it was finished. It took huge subsidies of our own money to pay for the experimental work that an original product needed. Virgin changed this with Realms. We bought back the product from Activision and licensed it to Virgin. We were trusted and Virgin gave us a realistic advance. The game worked well but was only moderately successful. Graftgold came back from the brink of extinction but at the price of being wholly reliant on publisher funding.

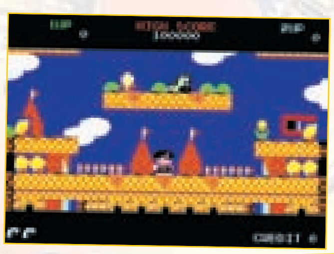
Console boom

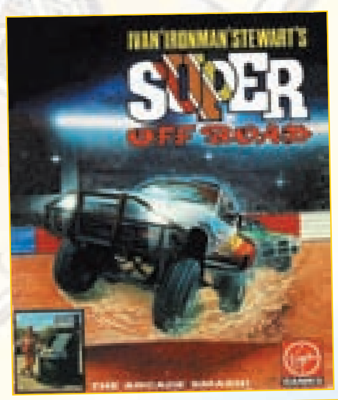
The console era took the market by storm. Graftgold completely missed the Nintendo 8-bit boom period due to its other commitments and a licensing policy that meant few could develop for the machine. But with Virgin's sponsorship, Graftgold became a Sega developer and converted a series of games to the Master System and Game Gear, including Super Off Road and Superman.

This was a successful period for Graftgold and profits were ploughed back into state-of-the-art 486 PCs and new development systems. The conversions enabled Andrew to undertake an original product, part financed by Mirrorsoft. Graftgold had learnt that to survive it was necessary to split funding across several publishers. When Mirrorsoft went down, Graftgold had two products with them – Fire and Ice and a console conversion of Total Recall (which was eventually canned). This double blow could have hit Graftgold hard but Renegade stepped in to publish Fire and Ice. This began a long relationship with Renegade and the Bitmap Brothers, who in part owned and ran Renegade. Renegade was very much a developer's publisher, set up to give the developer a fairer share of revenue. Gary Foreman converted the Bitmap's Gods to the Megadrive before leaving to join Sega.

Graftgold was then signed by Sega to develop The Ottifants, one of the Japanese giant's own products. The Ottifants was a cartoon program featuring an elephant family that was aimed at a similar market as The Simpsons. Most networks did not buy the TV series, so the game lacked the muscle of a major licence. John Kershaw organised the background graphics, while Colin Seaman joined the company and created most of the animations. Eldon Lewis programmed the Megadrive version and Kevin Holloway handled the Master System version. Many a late night was spent trying to keep to an impossible schedule. We were initially given three months to complete the game to a standard rivalling Sonic the Hedgehog. Half of this time was wasted waiting for a signed contract; experience had shown it was folly to start



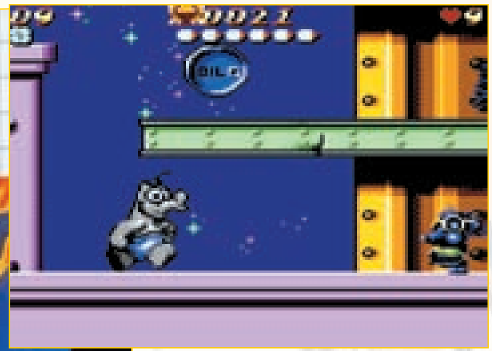






Rainbow Islands and Super Off Road proved to be excellent ports of the arcade originals





The potentially lucrative Ottifants licence foundered when the television show failed to attract interest from networks

without the contract being completed. New starter Emma Cubberly was the company's only female employee, apart from my wife who eventually looked after the payroll. Emma provided some of the background graphics and was one of several trainees taken on by Graftgold. We often trained staff from scratch as we were unable to afford experienced people.

Fire and Ice was a big seller on the Amiga and plans were made to convert it to PC, Megadrive and Master System/Game Gear. Unfortunately, Virgin wanted to publish the Sega versions and beat Renegade in approaching Sega. Eventually Sega, Virgin and Renegade agreed to publish the Master System/Game Gear version, but the Megadrive version was never published (despite being completed).

All of a sudden 8-bit console versions were not required anymore and conversion work dried up. Graftgold made a late entry into the Nintendo 16-bit market, programming Empire Soccer for the SNES in time for the 1994 World Cup. We also converted the game to the Amiga, PC and Acorn, but ultimately the Nintendo version was never published despite being finished in time, thus failing to recoup advances.

Graftgold then started work on a series of games for Renegade. Andrew developed a CD32 version of Fire and Ice that was sadly never published. He went on to develop Uridium 2, an Amiga version of his hit C64 game which did see the light of day. Iain Wallington also programmed Virocop (aka Virus Alert) for the Amiga, starring KLP2 from Quazatron and Magnetron. But it was the end of the line for Commodore, and Amiga sales plummeted despite constant interest from the public.

Spiralling costs

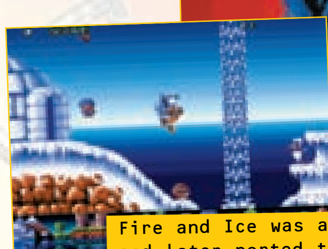
During this period, game content and development costs went through the roof with the advent of the CD. Instead of 2Mb games, 20Mb games were expected, increasing costs by 10-fold. The quality of graphics steadily improved as advanced graphics workstations became the norm. The PlayStation was in its early days and Graftgold was signed as a developer, but the cost of a PlayStation development kit was prohibitive. As time went by, all resources were concentrated on Moto X, a racing game for the PC. This was a dangerous but necessary tactic, as the company could not afford more than one product without major financing. Renegade increasingly extended advances for Moto X to ensure it became a quality CD product.

Many staff moved on to other companies during this period. Experienced programmers and artists were being offered big money to join companies such as Psygnosis. Many small developers were disappearing or being bought up. Most were dependant on publishing funding at this time, so if a publisher chose to can a product, it could mean the death of a developer. Renegade was a good partner during these years of increasing commercial pressure, but in the end decided it could not compete with the giant publishers dominating the market with multi-million-pound budgets. Renegade was bought by Warner, a move welcomed at the time by Graftgold since we were looking for investment to finance a new state-of-the-art game.

By this point Graftgold was wholly reliant on monthly advances received from Renegade. Profits had been hit by the non-publication of Empire Soccer for the SNES and Fire and Ice for the CD32. A proposed CD32 port of Uridium 2 was also canned. Moto X was costing a small fortune to develop and needed to sell well. In the meantime, Graftgold showed Warner a major new prototype based on the Avalon gameplay, and the game was immediately signed up. The project would have been Graftgold's largest to date; staff were recruited and work commenced. Then Warner suddenly changed its mind about its whole position in the industry. Our project was one of the many to be canned as budgets were slashed.

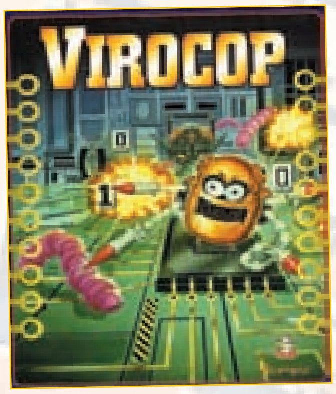
The decision almost killed Graftgold, indeed it seriously wounded it. We did manage to sign a conversion of Rainbow Islands to the PlayStation and Saturn, but a second conversion fell through after a few months' work due to problems with the publisher obtaining the licence. Graftgold was surviving but only just. Monthly income paid the bills but the company had no finance for working on new products, and we still had Moto X on our hands. Moto X had been 'finished' for about six months, but Warner kept asking for upgrades and tweaks.

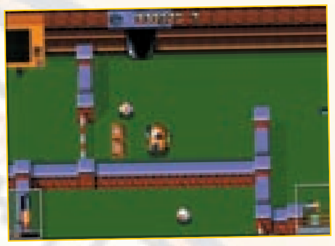


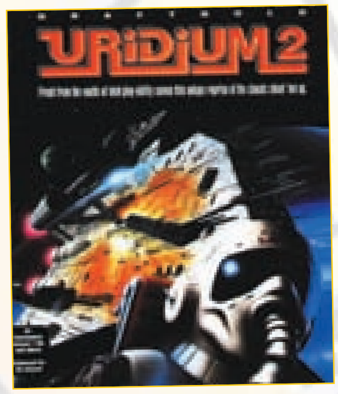


Fire and Ice was a hit on 16-bit computers and later ported to Sega's 8-bit consoles

Uridium 2 and Virocop were Graftgold's last games for the ailing Amiga









Such was the market, only a triple-A product would do. Finally, another advance was negotiated for extra work on Moto X. By this time Warner was being sold and it seemed that Moto X might not be published after all. But the game was finally accepted by Warner and published as International Moto X on the PC and PlayStation.

I don't think Moto X had any marketing spend at all – an astounding decision in a market dominated by big-spending publishers. We could not see any prospect of Moto X earning any royalties above the advances already spent, but it eventually sold well, recuperating all advances and becoming Graftgold's biggest profit-maker. I can only wonder what the result would have been with a marketing spend in scale with the development spend.

During the development of Moto X, a PlayStation project was signed with Coconuts of Japan. The game was a 3D tank-combat game entitled MBT. Delays in the production of MBT prompted Coconuts to attempt to reduce our monthly advances to one third. As the company was absolutely dependant on this income there was no way this could be accepted, so I decided I would have to lay off all but a skeleton staff. I was ready to tell everyone the news when the phone rang. It was the MD of Perfect.

Perfect ending?

Perfect had enjoyed considerable success with its Discworld games and had the finance to assist Graftgold. I sold Perfect the majority of the company, and it started negotiating with Coconuts. We had to lay off our musician and all but one of our graphics artists because Perfect was to provide these functions. Perfect funded the day-to-day activities to keep Graftgold going, and over the next two years the MBT project was remodelled by Perfect designers to become Hardcorps. The plan was to add loads of high-quality movie graphics to turn the game into a blockbuster. To realise the project, Perfect sourced extra funding from a publisher, but delays in the game's development caused funding to cease before it could be completed.

So 15 years of developing games came to an end. In all I believe Graftgold achieved my aims of producing high-quality entertaining software. We made a lot of money on the way, despite the ending, and most of the time had a great deal of fun. I would recommend the games industry to anyone wanting an exciting career, but it's certainly not an easy ride. Most publishers we worked with either went bust, sold out or simply did not publish the game to our expectations, despite tight contracts. Unless you can get real commitment by way of big advances you cannot rely on a publisher. The main problem is finding a publisher that is willing to commit. There are more games than publishing opportunities so publishers can pick and choose. I have heard of publishers over-subscribing product by a factor of many times. For every game they publish many more are deliberately canned, sometimes killing the developer. Which game will they can? Unfortunately they tend to can the game they have invested the least in, not the one with the least prospect of making money.

Publishers do take the lion's share of the risk when they put up the finance, but they also take the lion's share of the profit. What I found was a reluctance to reinvest this in the fabric of development. The developer is expected to do this out of its share of the profits, yet the economics of the industry means that the publisher's income is four or five times greater than that of the developer. Publishing is expensive but not five times as expensive as games development. One of our publishers paid more for each of its desks than it would loan us for a network server...

Still, all in all I have fond memories of all the people, staff and publishers alike I have worked with over the years. I would like to say thank you to all those people who believed in me and made the products what they were. I still dream of games not yet written. Maybe one day I will realise one of those dreams. RG*



International Moto X, for the PC and PlayStation, was Graftgold's final published title

Still best of friends – Andrew Braybrook and Steve Turner pictured recently




Will you accept this mission?
KNOW YOUR ENEMY
SHIELDS
DANGER
LASERS
MISSILES
RADAR
NAVIGATION
COMMAND BASE
MISSILE SILO
£5.95
£7.95
£5.95
3D LUNATTACK


THE 3D INTERSTELLAR ADVENTURE
ASTRO
Clone
HEWSON CONSULTANTS


THE 3D ADVENTURE MOVIE
AVALON
HEWSON CONSULTANTS


THE LIVING ADVENTURE MOVIE
DRAGONTORC
THE LOST REALMS
Now available for Amstrad CPC 464 and CPC 664
HEWSON CONSULTANTS


THE ULTIMATE BRAIN DRAIN!
Paradroid
For the Commodore 64 £7.95
HEWSON CONSULTANTS

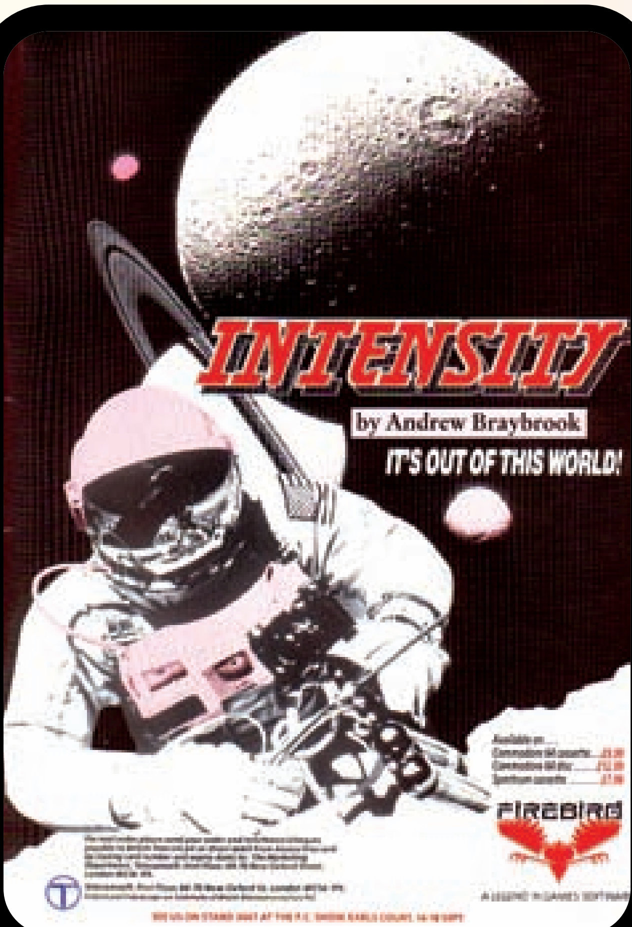

URIDIUM
TURN ON TO URIDIUM
THE ARCADE SPACE COMBAT GAME
FREE GIFT
HEWSON


rana rama
Can you escape its slimy grasp?
HEWSON


QUAZATRON
MEASURE UP TO QUAZATRON
HEWSON


MAGNETRON
Get to Grips with Magnetron
FIREBIRD
A LEGEND IN GAMES SOFTWARE

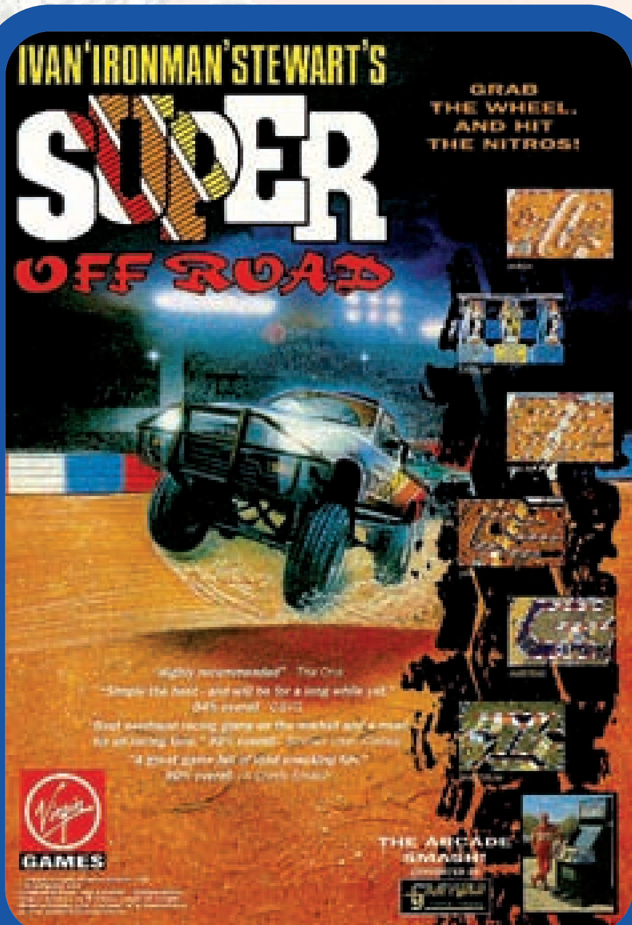

FIREBIRD
FLYING SHARK
ORIGIN ARCADE
HOT FROM THE ARCADES, FLYING SHARK IS THE ULTIMATE SHOOT-EM-UP FROM TAITO. BOMB AND BLAST YOUR WAY INTO ARCADE HISTORY.


INTENSITY
by Andrew Braybrook
IT'S OUT OF THIS WORLD!
FIREBIRD


Soldier of Fortune
I SURE AIN'T DOING IT FOR NO DUMB PRINCESS!
FIREBIRD
A LEGEND IN GAMES SOFTWARE


BUSHIDO
THE WAY OF The WARRIOR
FIREBIRD


RAINBOW ISLANDS
TAITO'S ISLAND HOP COIN OP... MONSTER HIT
ocean


IVAN 'IRONMAN' STEWART'S
SUPER OFF ROAD
GRAB THE WHEEL, AND HIT THE NITROS!
THE ARCADE SMASH!
GAMES


URIDIUM 2

Retro Coverdisc

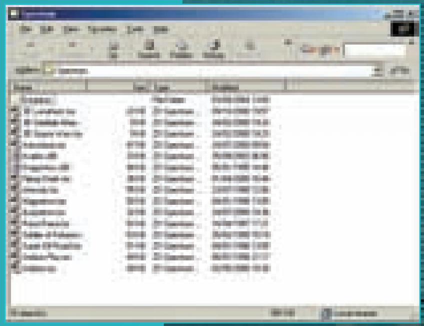
Our eighth disc features a double helping of quality retro content. First up is our exclusive collection of original Graftgold titles, including such classics as Paradroid, Uridium and Quazatron. Full instructions on how to play the games on your PC are included over the page. And then there's our behind-the-scenes look at the unreleased Konix Multi System, with over 40 minutes of never-before-seen footage. All in all it's easily our best coverdisc yet!



step 1 Place the coverdisc into your CD/DVD drive and it should start automatically. If not, select Run from the Start menu and enter D:\retro.exe (assuming that D: is the letter of your CD/DVD drive). After a brief pause the main menu will appear on screen.



step 2 To access the Graftgold games, click the Graftgold button to activate the games browser. Accept the declaration and then browse from platform to platform by clicking the tabs. For each format we have provided suitable emulators on the disc.



step 3 By clicking the Graftgold Games button on each page you will open a window containing a directory of all the games for that format. Now turn to page 102 for full instruction on how to run the games using the emulation software provided.



step 4 To view the video clips, select Konix Video from the main menu and then click on a clip to open it in your default media player. If you use Windows Media Player then you can toggle between windowed and full-screen mode by pressing Alt + Enter.

Problem solving

If you're having a problem with a particular program on our coverdisc, please view the help file in the program for assistance. You might also consider visiting the website of the program author for further help. If this fails, please email: *techsupport@livepublishing.co.uk.*

If you are having problems with the CD, first check that it is not dirty or scratched. CDs can be cleaned by holding them under the cold water tap and gently rubbing the silver side with a tissue. Dry it carefully with another tissue.

If the disc still doesn't work, then it may be faulty. Faulty discs should be returned to Retro Gamer, Live Publishing International Ltd, Europa House, Adlington Park, Macclesfield, Cheshire, UK, SK10 4NP. We will replace all genuinely faulty discs.

Coverdisc helpline

01625 855051

techsupport@livepublishing.co.uk

(Monday-Friday 10am-4pm)

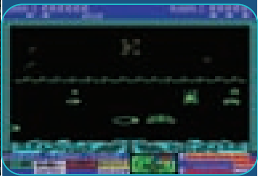
Helpline for coverdisc problems only

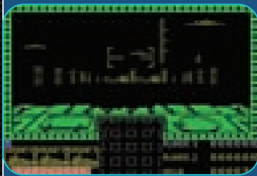
DISCLAIMER

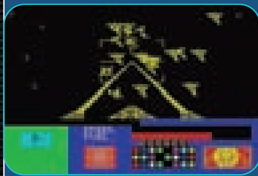
Some of the programs on the Retro Gamer disc interact with your PC on a fundamental level. We strongly advise you back up your personal data before using the disc. Due to the way the Retro Gamer disc is compiled, Retro Gamer, Live Publishing International Limited and/or any associated company and/or individual cannot take responsibility for damage to your PC or otherwise arising from use of the coverdisc. You use the programs on the disc at your own risk.

The Graftgold Collection

The very best of Graftgold's back catalogue – 50 games across six formats. Here's what you can look forward to…

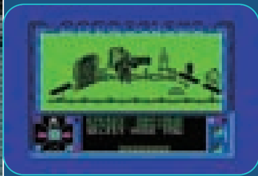
3D Lunattack

Dragon 32, Spectrum

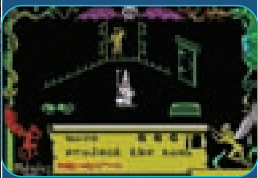
3D Seiddab Attack

Dragon 32, Spectrum

3D Space Wars

Dragon 32, Spectrum

Alleykat

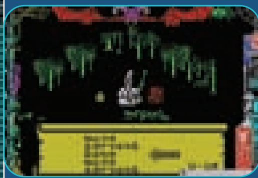
Commodore 64

Astroclone

Spectrum

Avalon

Spectrum

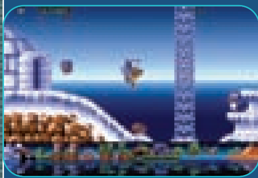
Bushido

Commodore 64

Dragontorc

Amstrad, Spectrum

Empire Soccer

Amiga

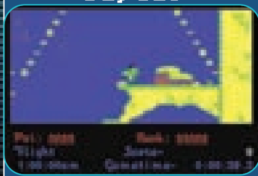
Fire & Ice

Amiga, Atari ST

Flying Shark

Amstrad, Spectrum

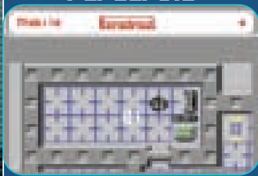
Gribblys Day Out

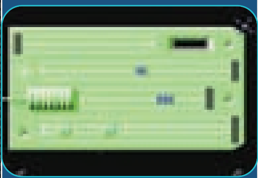
Commodore 64

Gribbleys Special Day Out

Commodore 64

Head the Ball

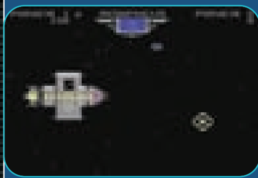
Commodore 64

Heavy Metal Paradroid

Commodore 64

Intensity

Commodore 64, Spectrum

Magnetron

Spectrum

Morpheus

Commodore 64

Paradroid

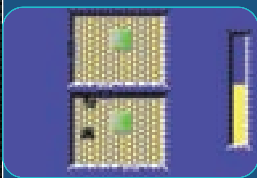
Commodore 64

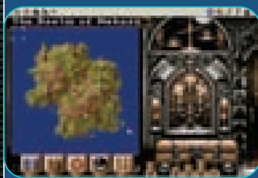
Paradroid 90

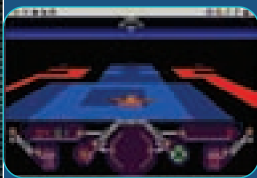
Amiga, Atari ST

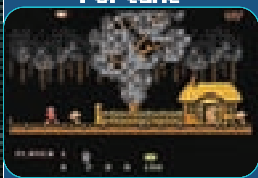
Quazatron

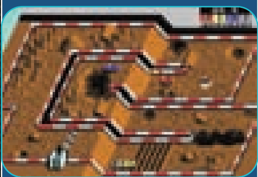
Spectrum

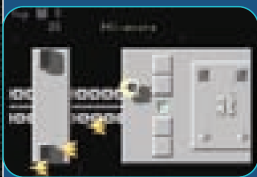
Ranarama

Amstrad, Spectrum

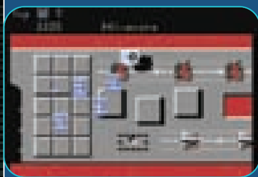
Realms

Amiga, Atari ST

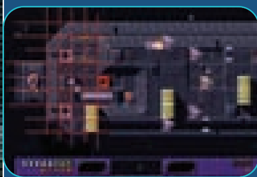
Simulcra

Atari ST

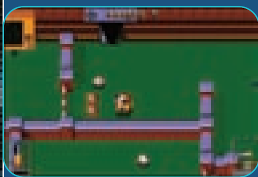
Soldier of Fortune

Commodore 64, Spectrum

Super Off Road

Amstrad, Atari ST, C64, Spectrum

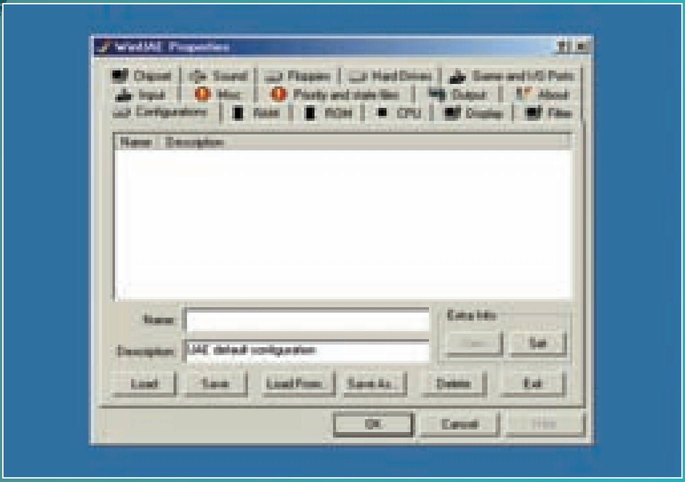
Uridium

Amstrad, C64, Spectrum

Uridium Plus

Commodore 64, Spectrum

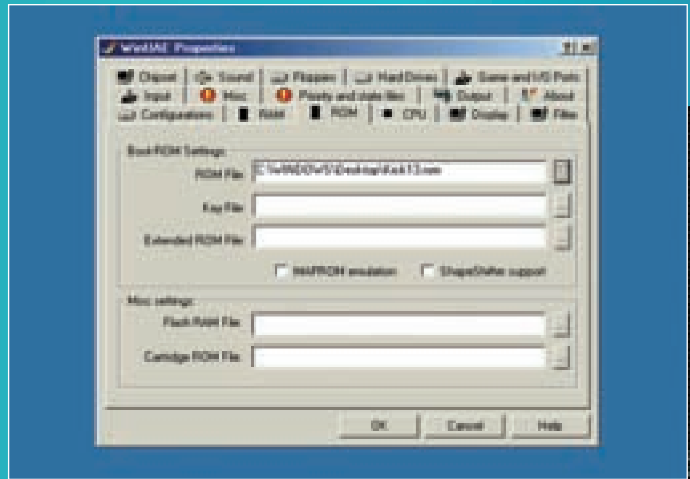
Uridium 2

Amiga

Virocop

Amiga

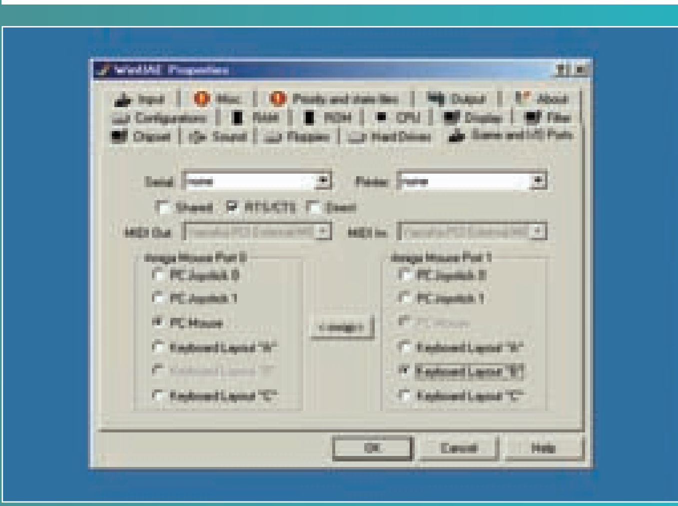
Emulate the Amiga (using WinUAE)



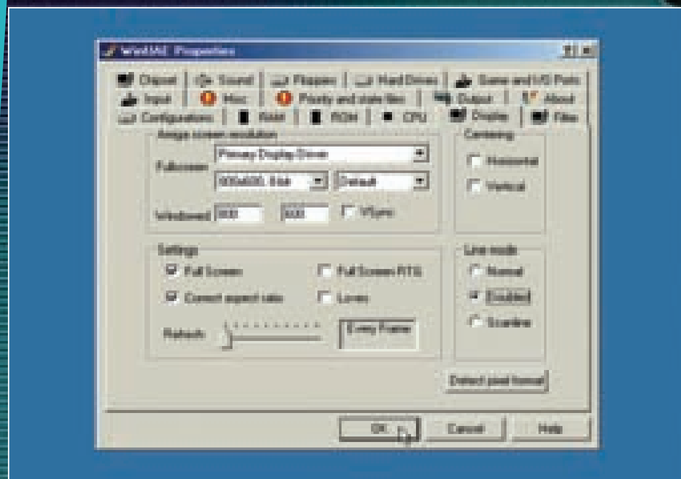
step 1 Begin by installing WinUAE. Before you can use the program you need an Amiga Kickstart ROM file. Due to copyright reasons this cannot be included on the coverdisc. You can either grab the file from an original Amiga Workbench disk or search the Internet for one.



step 2 Click the ROM tab and create a link to your Kickstart ROM file (the file Kick13.rom will emulate the A500's Workbench 1.3 and Kick30.rom will emulate the A1200's Workbench 3.0). Now click the Floppies tab. In the box marked DF0 browse for an Amiga Disk File (usually .adf).

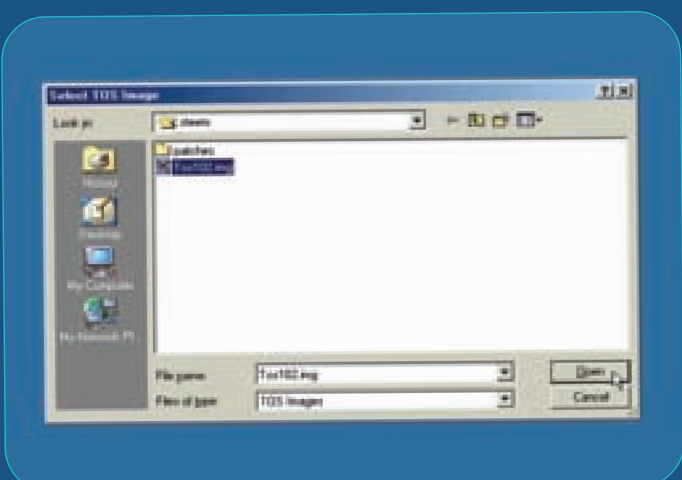


step 3 Select your control method by clicking the Game and I/O Ports tab. We recommend you opt for PC Mouse in Amiga Mouse Port 0 and Keyboard Layout B in Amiga Mouse Port 1. This keyboard setting lets you emulate a joystick using the cursor keys and left Ctrl to fire.

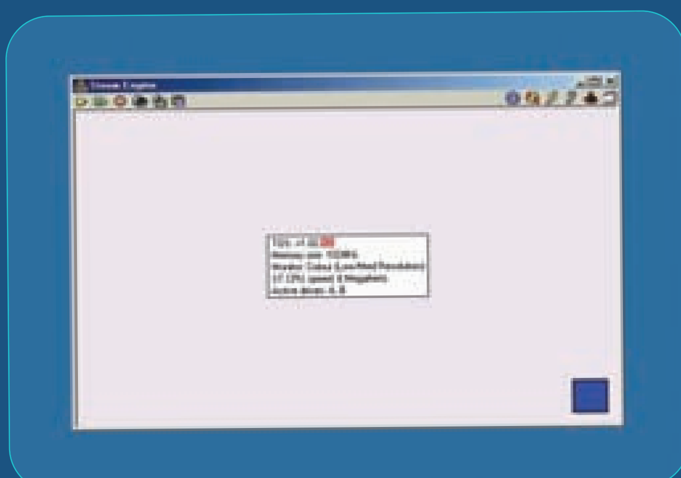


step 4 Click the Display tab and tick the Correct Aspect Ratio and Full-Screen options. Finally, check the Doubled option under Line mode and click OK. After a pause the game will load. During play you can pause emulation and return to the program menu at any time by pressing F12.

Emulate the Atari ST (using Steem)



step 1 Unzip the Steem archive to an empty folder on your desktop and run the Steem.exe file. When promted, open the TOS image file (you'll find it in the same folder as the Steem executable – it's named Tos102.img). You can ignore the other options for now – just click Cancel.



step 2 The main Steem screen will now be displayed. The emulator is very easy to use – if you drag and drop an Atari ST game into the Steem window, the game will autorun. For multiple disk games you can change the disk in the drive by visiting the Disk Manager.

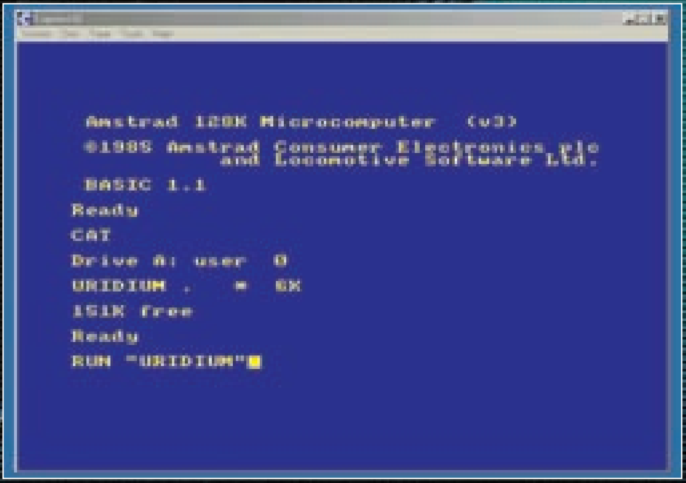
Emulate the Amstrad (using Caprice32)



step 1 Install Caprice32 from the coverdisc. For ease of use, select to place shortcuts in the Start menu and on the Desktop. When the files have been crossed across to your PC, the familiar Amstrad BASIC screen will be displayed.



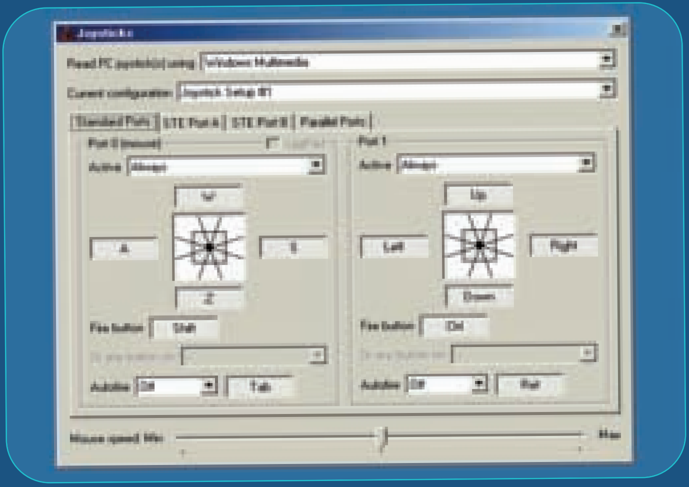
step 2 The Amstrad games on the coverdisc are in the .dsk format. Theres's no need to unzip the files first – just drag and drop the archive into the Caprice32 window. A conformation message will be displayed at the bottom of the screen.



step 3 To run the game, type in CAT and press the Enter key to display the contents of the disk. There may be more than one file listed – you need to run the program file. So, using the example in the screenshot, type in RUN "URIDIUM" and press the Enter key.



step 4 The game will now load the virtual disk image. If you would like to speed the emulation up, press F8 and move the CPC Speed slider under the General tab. When you have changed the setting, click OK to return to the game.

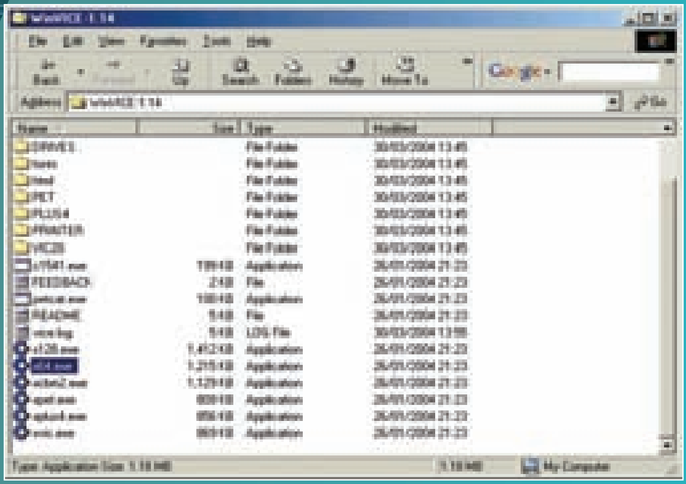


step 3 To change the control options, click the small joystick icon in the top right-hand corner. By default, Port 1 is mapped to your PC keyboard's cursor keys, with right Ctrl as fire. We recommend you change the Active options on both Ports to Always.

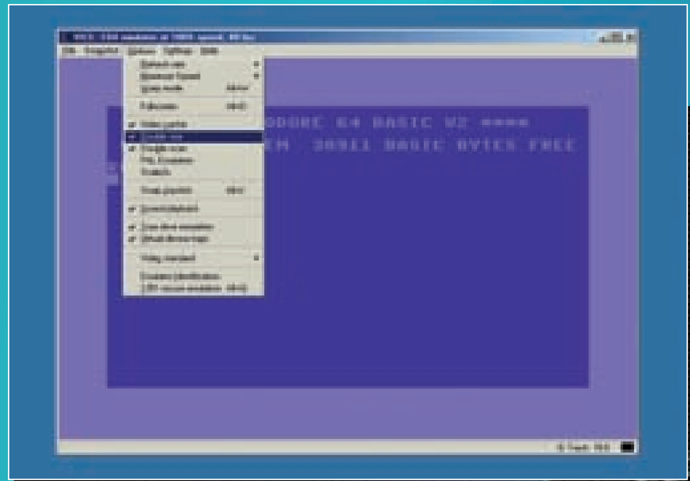


step 4 You can switch to full screen mode at any time by pressing Alt and Enter. When in full screen mode, press the Pause/Break key to display the menu bar. Pause/Break also toggles the PC mouse on and off when in windowed mode.

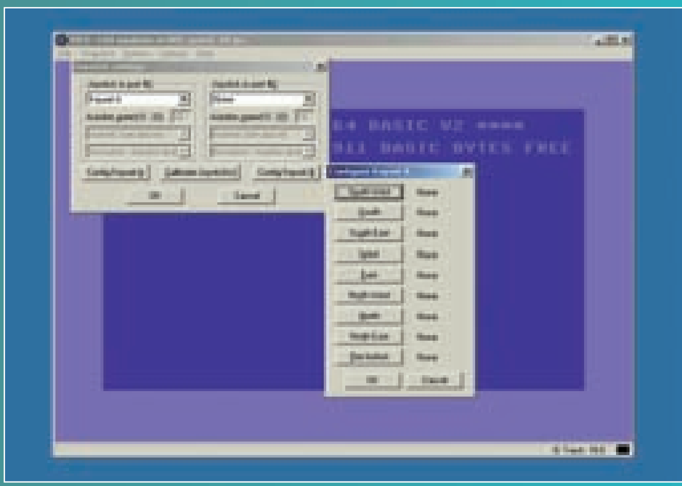
Emulate the Commodore 64 (using WinVICE)



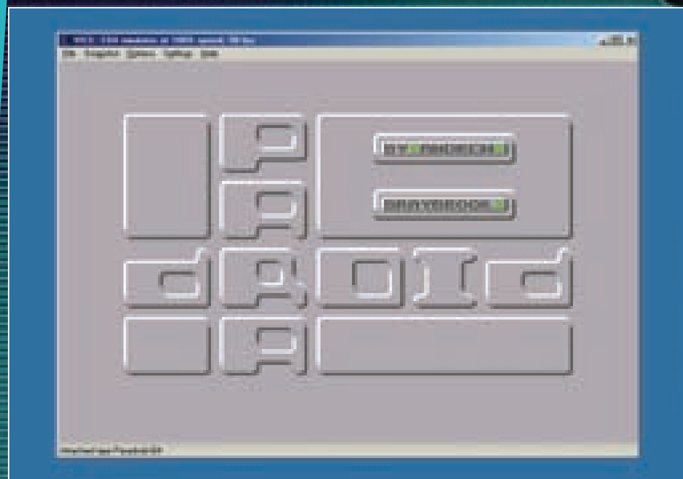
step 1 Unzip the WinVICE archive to an empty folder on your desktop. The folder contains executable files for several Commodore machines. To emulate the Commodore 64, simply double-click x64.exe and wait for the Commodore BASIC screen to appear.



step 2 To run the emulator full-screen, first select Double Size from the Options menu. You can now toggle full-screen mode on and off by pressing Alt+D. To remove the scanlines click Options/ Double Scan. You are now ready to load a game.

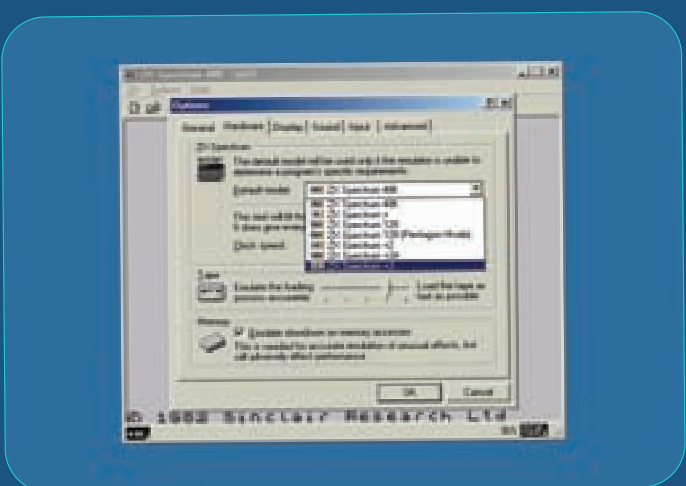


step 3 If you have a PC Joystick then you can use it with WinVICE. Click Settings/ Joystick Setting and select PC Joystick from the drop down menu. You can also emulate an original Commodore joystick using your PC keyboard by selecting Keyset A and then pressing Config Keyset A.

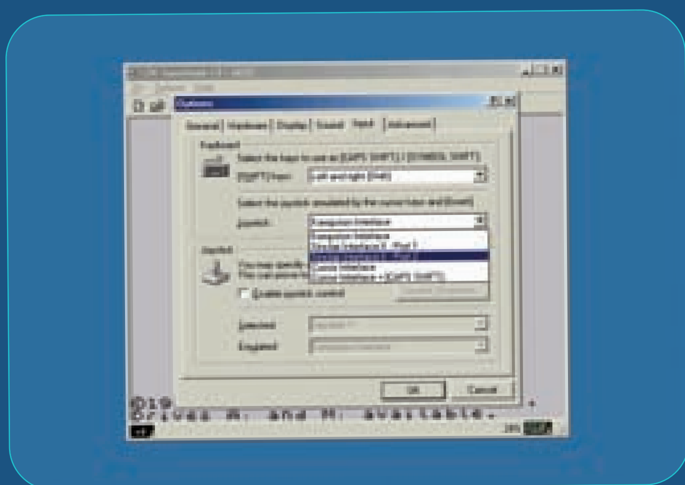


step 4 The games on the coverdisc are a mixture of tape and disk images. To load either type, select Autostart Disk/Tape Image from the File menu and select a file. To speed up loading times, switch to Warp mode by pressing Alt+W.

Emulate the Spectrum (using ZX32)

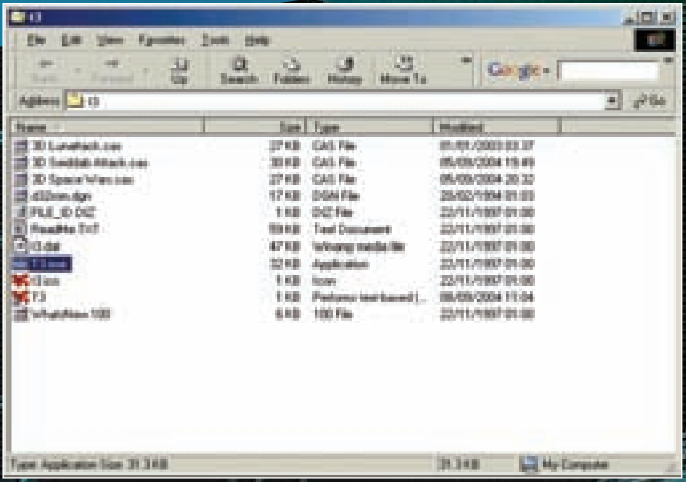


step 1 Run ZX32 from the coverdisc. Press F9, select the Hardware tab and choose a machine from the Default Model menu. Most games will run on the ZX Spectrum +3 but if you have any problems select the ZX Spectrum 48K model. Now click OK and press F5 to reset the emulator.

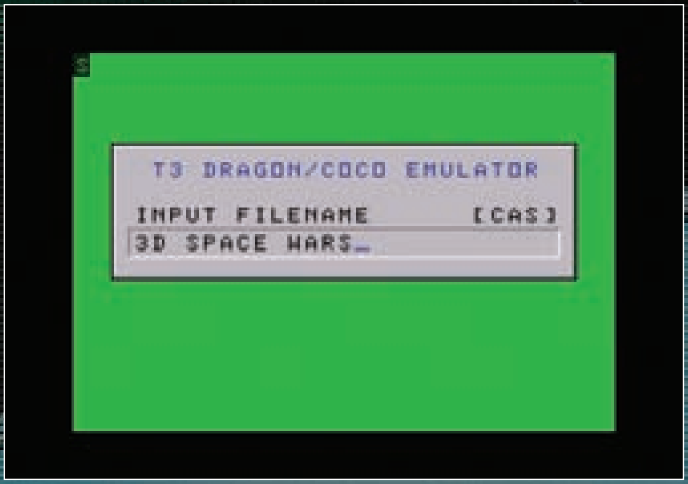


step 2 Return to the Options dialog (F9) and select the Input tab. Here you can choose which joystick will be emulated using your PC cursor keys (and 0 to fire). Most Spectrum games support Kempston Interface and Sinclair Interface so select either of these.

Emulate the Dragon (using T3)



step 1 The first thing you need to do is extract the T3 archive into an empty folder, then add the Dragon Boot ROM file (also on the coverdisc under the Dragon tab). Finally place the Dragon games into the folder and run the T3 exectuable.



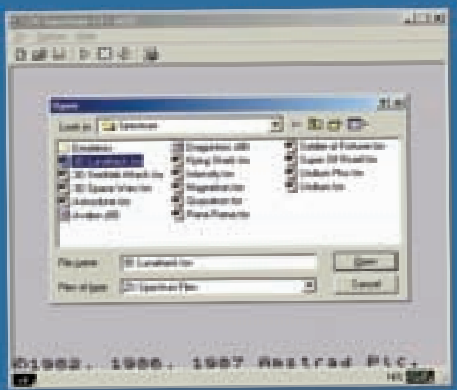
step 2 Press any key to skip the opening screen. When the green BASIC screen appears, type in CLOADM and press the Enter key. A dialog box will appear. You now need to type in the extact filename of the game (minus the extension).



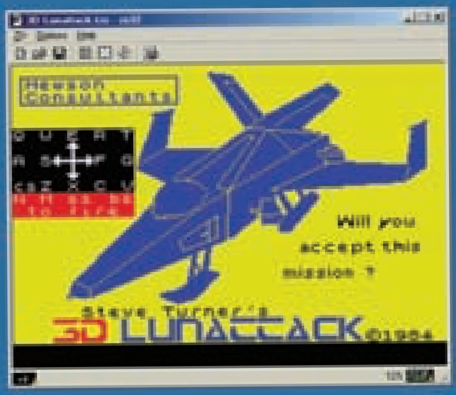
step 3 Hit the Enter key and the game will load instantly. By default you can control the games using the cursor keys to move up, down, left and right, and pressing left Alt to fire. You can reset emulation at any time by pressing F8.



step 4 Because T3 runs in a DOS box, it's important that you quit out properly and do not leave the emulator running in the background. To quit back to Windows, press F12 and then press the down cursor key to select Yes. Now press Enter to quit.



step 3 You are now ready to load a program into the emulator. Select Open from the ZX menu and search for Spectrum file types (.z80, .tap and .tzx files are supported by the emulator). Zip files are supported too so there is no need to extract files from archives.

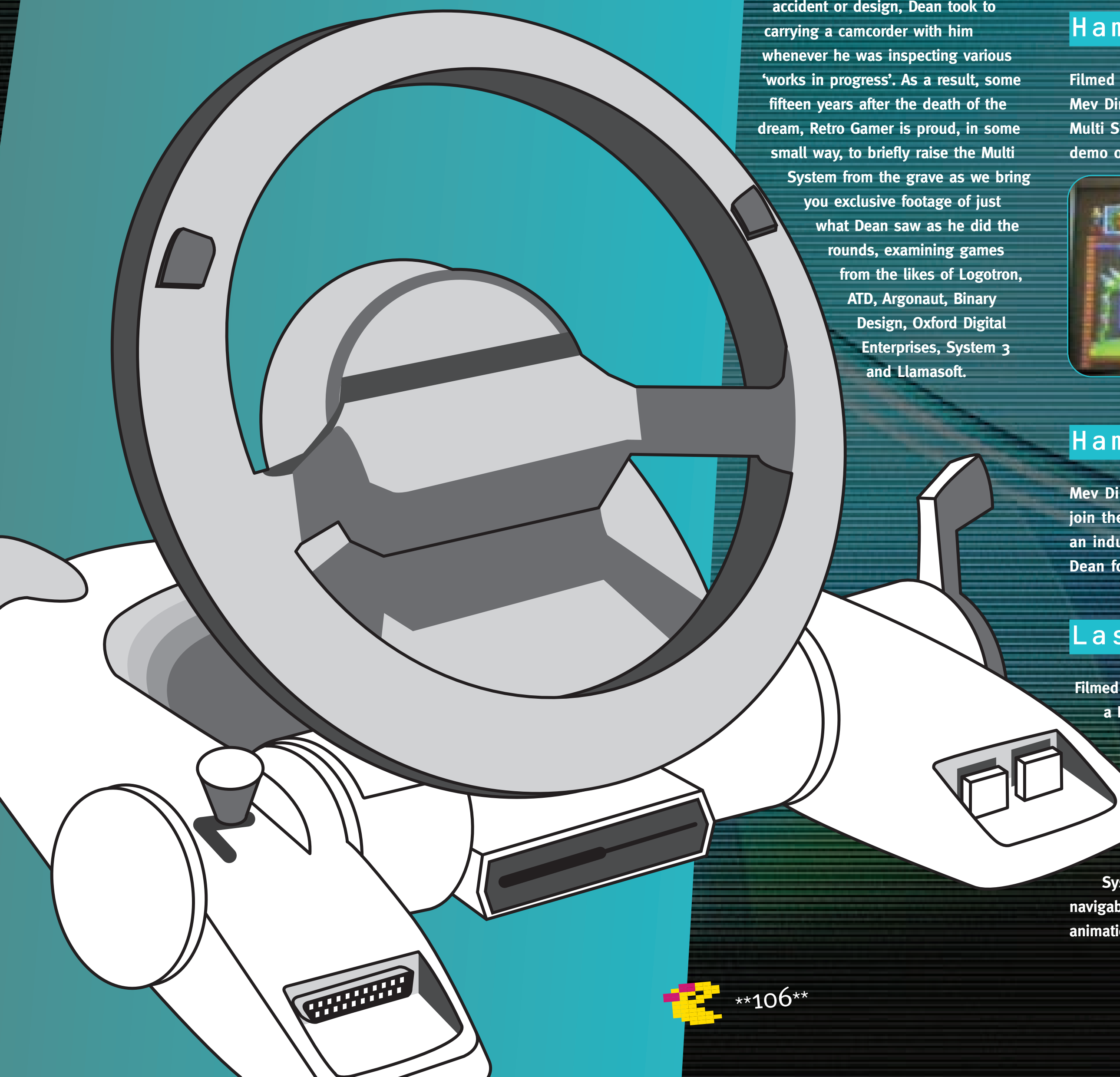


step 4 Click Open to load the game. To toggle between windowed and full-screen mode press F4. For a clearer full-screen display, you can remove the scan lines by pressing F9 and selecting the Display tab. Now change the Screen Drawing option to Normal.

Konix Video

On the coverdisc you'll find a massive slice of gaming history as we reveal the Multi System in all its glory, with numerous pieces of video footage demonstrating exactly what the machine had to offer

When a machine fails to make it off the drawing board and into mass production, the passage of time fades memories and leads to the gradual erosion of any surviving hardware and software base. Eventually, the games become the stuff of myth and legend and it becomes increasingly difficult to separate hyperbole from fact. Thank heavens, then, for Jon Dean, now Vice President of Product Development for Midway Games in America. During 1989 he found himself knee-deep in software that was being written for the Konix Multi System. His job was to oversee the development of internal and third party games. Whether by accident or design, Dean took to carrying a camcorder with him whenever he was inspecting various 'works in progress'. As a result, some fifteen years after the death of the dream, Retro Gamer is proud, in some small way, to briefly raise the Multi System from the grave as we bring you exclusive footage of just what Dean saw as he did the rounds, examining games from the likes of Logotron, ATD, Argonaut, Binary Design, Oxford Digital Enterprises, System 3 and Llamasoft.



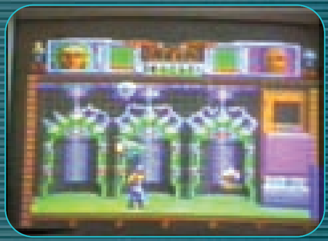
Konix Trailer

This is the promotional video that Konix produced using the demo materials that Jon Dean had worked with ATD to create. The video shows the Multi System concept, peripherals and all. This was the footage that would entice software houses to 'get on board' and would result in an unbeatable set of launch titles.



Hammerfist 1

Filmed on 26th June 1989, we see Mev Dinc using PDS on the Konix Multi System dev kit, showing the demo of Hammerfist.



Hammerfist 2

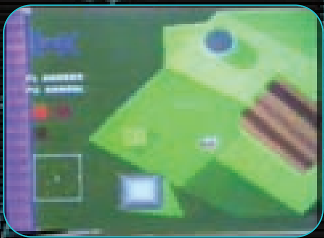
Mev Dinc appeals for developers to join the Society of Software Authors, an industry body that he and Jon Dean founded.

Last Ninja

Filmed at ATD's offices, this film shows a Konix Multi System dev kit, upon which Jon Steele demonstrates the first milestone of Last Ninja 2, which ATD were developing for System 3, for the Konix Multi System. The backgrounds are navigable, but no character or animation is present.

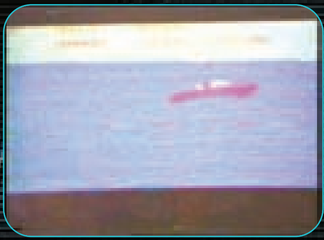
Rotox

Filmed on 28th June 1989, this footage shows the first work in progress of Rotox, a game in development at Binary Design.



Sailing

Filmed on 24th July 1989, Jon Dean talks with David Pringle and colleagues at Oxford Digital Enterprises. The footage shows an early work in progress version of their sailing simulator, a game that would have been awesome with the Power Chair.



Mutant Camels 1

On 13th July 1989, Jon Dean drove to see Jeff Minter (and his Llamas) in his remote Welsh hideaway. This footage shows Minter working on the Multi System development kit, and work in progress on Mutant Camels 89. The video does not do justice to just how stunning the game looked or played.



Mutant Camels 2

More extracts from Mutant Camels 89. The baby you can hear in the background is Jon Dean's son – he's now 16. The female you can hear is Dean's wife – son and spouse having joined Dean on his daytrip to seek out the Yak!

Mutant Camels 3

The Yak and Dean discuss what else he has to get done on the game.



Bikers

This was an early proto version of Bikers, the game that was going to be included free with every Multi System. It was in development at Argonaut Software. Dean took this film in an upstairs bedroom at Argonaut's offices – a house in Mill Hill, London. In this demo the bike only leaned one way! In the background you can hear Jon Dean talking with Rick Clucas and Jez San of Argonaut. Also present is Jacqui Lyons, who represented Argonaut at that time.

StarRay

Filmed on 28th July 1989, this was the first time Jon Dean met Brian Pollock who was writing StarRay for Logotron. This was the first time they had shown the game to Dean, even though it was still at an early stage of development.



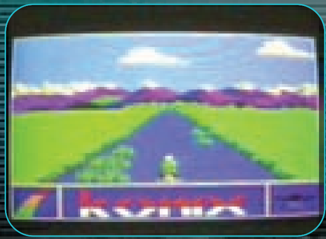
Cube Demo

This is Jon Dean playing with the spinning cube demo. He came up with the idea of the demo as the answer to the usual 'tech' demos that each new hardware platform puts out at the beginning of its life cycle. So here we see real games playing on some cube faces, with marketing messages on others. Watch as Dean speeds up the cube and has it spin about its axis simultaneously. You can hear Dean asking Fred Gill and Jon Steele what value would be 'safe' to quote to software developers in terms of performance (frames and polys per second. Some things never change!)



Control Demo

Jon Dean worked with ATD in designing some simple demos for the Toy & Hobby Fair that would show off the three basic modes of the Multi-System. The first demo is a simple racing game where a Multi System drives along a track using the steering wheel. Next there is a jet-ski demo that uses the motorbike mode - this was coded to distinguish it from yet another driving 'track'. Finally there's a sequence using the flight yolk mode – a tribute to Afterburner, a game that was hot property at the time.



Tech Demo

Fred Gill of ATD shows a poly demo running on the first Multi System prototype development kit.

Heads Demo

This demo was created for the British Toy & Hobby Fair. It was a simple slice of gaming action by ATD – never intended to be a commercial product – featuring heads of the great and good – Alan Sugar, Mike Tyson, Rod Cousens, Clint Eastwood, Laurel and Hardy, Michael Jackson, Marilyn Monroe and, of course, Wyn Holloway.



ATD Landscape

This is a rolling terrain demo that ATD wrote to prove that they could make the Flare One fly. You can hear Jon Dean talking with Chris Gibbs and Fred Gill of ATD as the screen is filmed.



Viktor Vector

Early prototype of Viktor Vektor, a character for a proposed game that ATD had designed called Captivator.

Artwork Package 1

This is an extract from a training tape that Jon Dean made to show how to use the art package that ATD wrote to make it easier to work on the Multi System. Chris Gibbs explains all.



Artwork Package 2

More extracts from the art tutorial.

Artwork Package 3

More extracts from the art tutorial.

Audio Package 1

Filmed on 19th Jan 1989, this footage is taken from the original filming of the audio tutorial (including outtakes). Martin Green gives an insight into the audio package that ATD created.

Audio Package 2

More extracts from the audio tutorial.



RETRO MART

Your place to buy and sell all things retro!

Reach thousands of retro collectors with a classified advert in the magazine. Your advert will also be included free of charge on our website!

To advertise in Retro Gamer, simple follow the steps below

Step 1 - Fill in the text of your advert in the box below (one word per box, first 30 words free - Maximum 5 adverts per person).
Please use **BLOCK CAPITALS**

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45
46	47	48	49	50
51	52	53	54	55
56	57	58	59	60

30 Words FREE – Private Only	Boxed		Reversed	
	£6.80 – Private	£13.60 – Trade	£8.00 – Private	£16.00 – Trade
£1.70	£8.50	£17.80	£9.70	£19.40
£3.40	£10.20	£20.40	£11.40	£22.80
£5.10	£11.90	£23.80	£13.10	£26.20
£6.80	£13.60	£27.80	£14.80	£29.60
£8.50	£15.30	£30.60	£16.50	£33.00
£10.20	£17.00	£34.00	£18.20	£36.40

Step 2 - Choose the category for your advert to appear in and tick the box

- ☐ SINCLAIR FOR SALE
- ☐ SINCLAIR WANTED
- ☐ COMMODORE FOR SALE
- ☐ COMMODORE WANTED
- ☐ ATARI FOR SALE
- ☐ ATARI WANTED
- ☐ NINTENDO FOR SALE
- ☐ NINTENDO WANTED
- ☐ SEGA FOR SALE
- ☐ SEGA WANTED
- ☐ OTHER FOR SALE
- ☐ OTHER WANTED
- ☐ RETRO GAMING CLUBS
- ☐ ANYTHING ELSE RETRO FOR SALE
- ☐ ANYTHING ELSE RETRO WANTED
- ☐ MERCHANDISE FOR SALE

Step 3 - **Complete your name and address details**

Mr/Mrs/Miss ______ Name ______

Address ______

______

Postcode ______ Tel ______ Email ______

Step 5 - **Returning your advert**

A **By Fax** - Complete this form and fax it to **01625 855071**

B **By Post** - Complete this form and return it to
Retro Mart, Live Publishing, Europa House, Adlington Park, Macclesfield, Cheshire, SK10 4NP

C Visit our website at: **www.livepublishing.co.uk** and complete the form online

Step 4 - **Payment**

My advert is no more than 30 words and free

My advert is more than 30 words, I enclose payment as follows

Please tick
☐ PRIVATE ☐ TRADE
Advert amount £...........

I enclose a cheque payable to 'Live Publishing' OR Please debit my Visa/Mastercard/Switch for the above amount

Card No. ______ Expiry date ______

ISSUE NUMBER OR VALID FROM (IF SWITCH) Start date ______ Issue No. ______

CARDHOLDER'S SIGNATURE ______

I am not advertising pirated, pornographic or any other kind of illegal software and my advert is both honest and legitimate. RG reserves the right to refuse or alter adverts at the discretion of the management. RG cannot be held responsible for the condition or quality of goods advertised. Your advert will be processed on receipt and will appear a.s.a.p. subject to space and availability.

Please note: The standard RG conditions of advertising apply to all classified advertisements. Cancellations and amendments are not accepted to free ads. The publishers may refuse any advertisements and cannot guarantee insertion into any specific issue. Live Publishing will use your information for administration and analysis. If you do not wish to receive offers from Retro Gamer please tick here ☐

If you are a business advertiser looking to place a display advert, please call Danny on 01625 855086

SELL YOUR RETRO GEAR - 30 WORDS FREE!

SINCLAIR FOR SALE

ZX Spectrum boxed in mint condition for sale – I also have loads of games and other retro speccie stuff mags etc. email me at mc_greaves@hotmail.com for pictures and information

Several Speccy mags for sale – Covers and conditions are variable, for cheaper prices. Please contact me for more information by email at rdisky@hotmail.com

Over 250 unboxed Spectrum +2 games for sale – Including some titles by Ultimate. All tested and working. Offers around £125 please. Phone or email Neil on 07782159616 or neilbailey626@yahoo.co.uk

Looking for new software for your Speccy? – Look no further, as Cronosoft offer a range of titles supporting all Spectrums, including the 16K model! Log on to www.cronosoft.co.uk for more

Knightlore and Nightshade compilation – With four other US Gold Games £15 o.n.o. Contact ianjonesuk@supanet.com for information

Shadow of the Unicorn with 16k interface – Boxed with map and instructions. Good condition, only £15 o.n.o. Contact ianjonesuk@ supanet.com for information

COMMODORE FOR SALE

C64 tape games for sale – Approximately 23 plus one game cartridge. I also have a few C64 game magazines. Only £25 or will swap for Final Fantasy on PC. Email me at evil_elfs@hotmail.com

For sale: C64 with gun and games – Open to offers. Email me at glyn@hewitt.abelgratis.com

Producing new N64 games! – Selling an exciting new range of C64 games, coming soon! More information can be found at http://generationxgames.tripod.com

Commodore 64 SCART cable – 2m, high quality, fits C64, C128, SX-64, VIC-20, Plus/4, etc. £8 + £1 postage. PayPal or Nochex accepted. Phone 07713 630087 or email jp.hayward@virgin.net

Centipede on Cartridge by Atarisoft – For the Commodore 64, still sealed! £7 plus £1 for UK postage and packaging. Paypal accepted. Email me for more information at ants2000@hotmail.com

To advertise on this page, fill out the form at www.retrogamer.net

Wanting the latest C64 software? – Protovision is for you! Check us out at www.protovision-online.de

Commodore Scene magazine – For all C64, C128, GEOS and emulator users. Subscribe today! Further details are at www.commodorescene.org.uk

COMMODORE WANTED

Does anyone have Leisure Suit Larry or Street Rod for sale for the Amiga? – Or is willing to trade for other Amiga games? Please contact me via email at ian_gryglewski@yahoo.com.au

ATARI FOR SALE

Atari 8-bit SCART cable – 2m, high quality, fits 800, 600XL, 800XL, 65XE, 130XE etc. £8 + £1 postage. PayPal or Nochex accepted. Phone 07713 630087 or email jp.hayward@virgin.net

ATARI WANTED

Alien Vs Predator and Kasumi Ninja wanted for the Atari Jaguar – Will pay good price or swap for Mega-CD plus Megadrive and games. Telephone 01495 310 406

NINTENDO FOR SALE

N64 for sale! – with all leads, one controller, WWF Warzone, Banjo Kazooie and an expansion pack. All yours for only £18 or nearest offer. Email Gazzer979@aol.com or telephone 0208 427 5847 between 5pm and 9pm

Perfect Dark for the N64 – USA version. Boxed with instructions. Email for price and postage details at patrickmc_court@hotmail.com

Various SNES games for sale – around a dozen titles in all. Please email me for a list rburnos@aol.com

The Legend Of Zelda: Ocarina Of Time (for N64) UK version, boxed with instructions and in good condition. £5 + £1.50 insured Postage and Packaging. E-mail for photo/details at garethcrowley@amiga.e7even.com

N64 Console – With all leads and connections, one controller, Expansion Pack, WWF Warzone cartridge & Banjo Kazooie £25. Email Gazzer979@aol.com or telephone 0208 427 5847

NES games for sale – Zelda 2 (gold cart), Paperboy 2, The Fantastic Adventures of Dizzy and Krusty's Fun House. All boxed with instructions and in good condition. Open to offers. I also want a PC Engine. Contact rburnos@aol.com

SEGA FOR SALE

Mint condition factory sealed NHL 96 for SEGA Genesis – Works on PAL Megadrive also. Just £2 including postage. Email thx1138@ntlworld.com or telephone 01234 302416

X-Men Vs Street Fighter for Sega Saturn – Box set edition (Japanese). Fully boxed with instructions and RAM cart and in good condition. £20 + £1.50 insured Postage and Packaging. Email garethcrowley@ amiga.e7even.com for photo & details

Wonder Boy In Monster World for Sega Master System – UK version, boxed and in good condition. £4 + £1 insured Postage and Packaging. Email garethcrowley@amiga.e7even.com for photo and details

Thunder Force IV for Sega Megadrive – UK version, boxed with instructions and in good condition. £8 + £1 insured Postage and Packaging. Email garethcrowley@amiga.e7even.com for photo and details

SEGA WANTED

Sega Megadrive games wanted – Super Fantasy Zone, Sonic Compilation, Fire Shark and more. SNES Games also wanted, especially Yoshi's Island. Please text or phone Daniel 0778 636 4996. I can do deals

Wonder Boy in Monsterland for Sega Master System – Also card games wanted. Email me at rburnos@aol.com

OTHER FOR SALE

For sale and trade – 350 retro games at www.dieterkoenig.at/ccc. I am always interested in trades for all 8-bit systems! Details available on the website

Acetornic MPU 1000 – with five boxed games. Only £40. Email for details glyn@hewitt.abelgratis.com

I'm selling off my collection of retro adventure game books – Including Lone Wolf, Fighting Fantasy and many others. Email airport_master@ yahoo.co.uk for the complete list

Help! surplus stuff to sell or swap – Amiga 500, C64, BBC Micro B + view chip, boxed view printer driver generator, Microvitec Cub monitor, Phillips green screen monitor, Panasonic printer ribbon kxp1080. Interested? Email georgemurcott@ hotmail.com

High-quality Dragon 32/64 2m SCART cable for sale – £8 + £1 postage. Phone 07713 630087 or email jp.hayward@virgin.net

Sim City for the Acorn Archimedes – UK version, boxed with instructions and in good condition. £5 + £2 insured Postage and Packaging. Email garethcrowley@ amiga.e7even.com for photo and further details

OTHER WANTED

PC Engine wanted – Plus games, especially Wonderboy in Monsterland. Models wanted: Normal, Turbo graphics or Duo CD. Please email me at rburnos@aol.com

SHARP MZ-80A, B, K or 811 wanted – Another person looking for Sharp. Must be in working condition, cosmetic condition less important. Please email at SharpOwl27@yahoo.co.uk

RETRO GAMING CLUBS

Retro Gaming Interest Group – Based in Ingham, Australia. For further information about us, please phone 0431 815 151

We are a group aimed at getting a retro gaming championship held in the UK – For further details email rosswillett69@hotmail.com or log onto http://uk.groups.yahoo.com/group/UKretro_championships

We are an international community for collectors and retro enthusiasts alike – Including (amongst other things) a comprehensive games database. Drop in and visit at www.rfgeneration.com

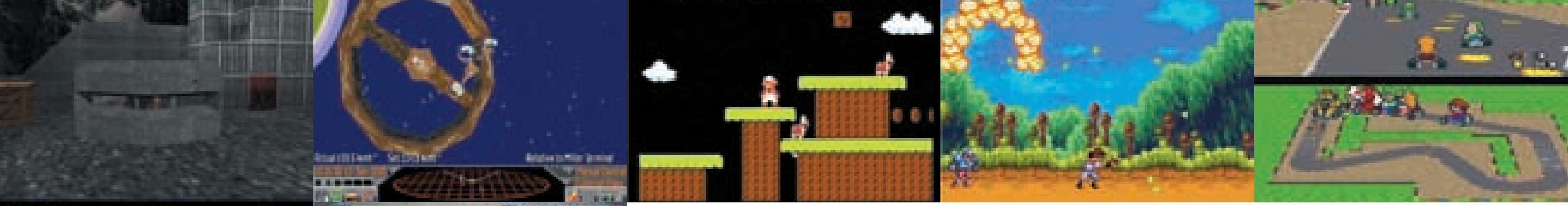
Hello, I'm looking for members – For my Internet forums at www.ingomania.co.uk. Come join us and talk about anything retro! (NES Classics layout coming soon, and extended retro zone)

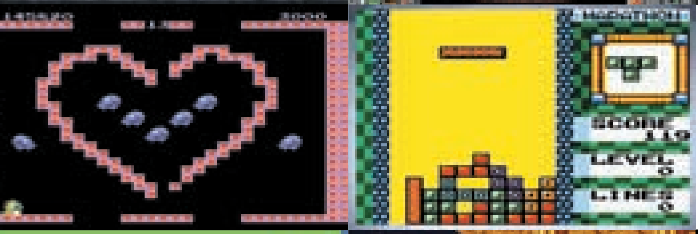
Interested in the ZX Spectrum? – Check out ZXF – THE free online publication for all of your Speccy needs. Issue 8 is out now with all the news and views that matter. Download your copy from www.cwoodcock.co.uk/zxf

ORSAM 2004 SINCLAIR AND CLONES COMPUTER SHOW

Held on Saturday 6th November 2004 at the Alec Bussey Scout Centre, Rowington Road, Norwich. Free admission and parking. Opens 10am through to 4pm as was last year. Book for evening meal. For information, head over to **www.speccyverse.me.uk/orsam/**

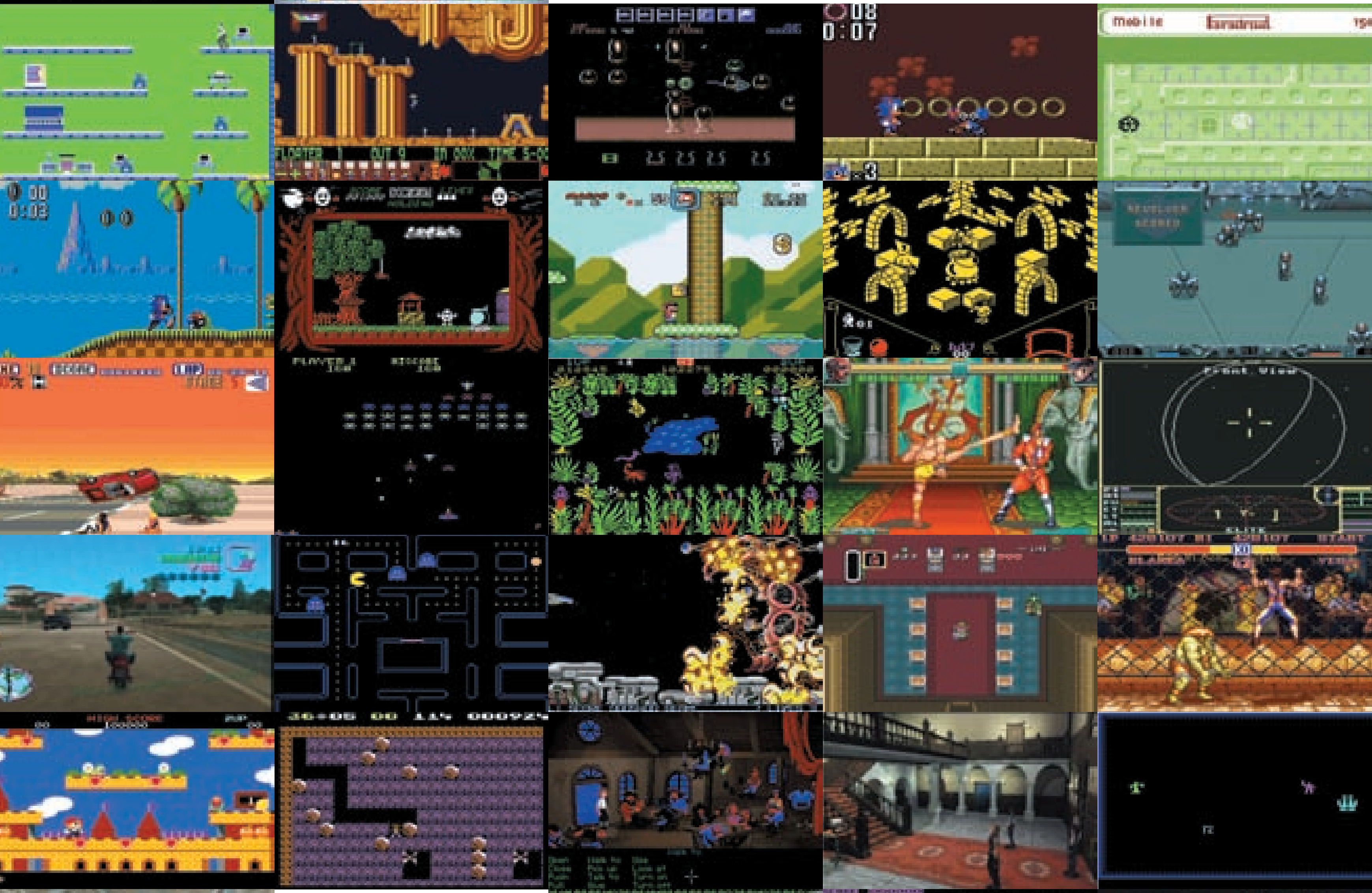
eMag

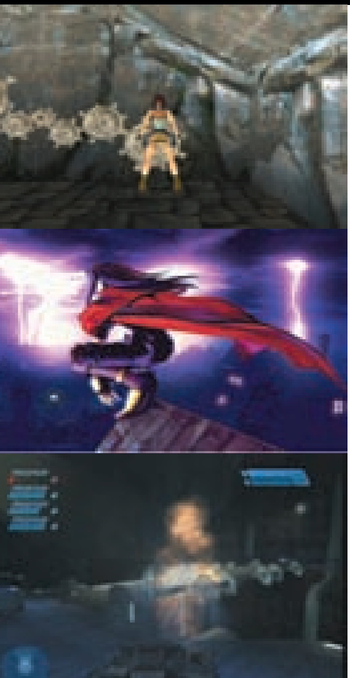




Continuing next month...

The top 100 games EVER! (As voted for by you)

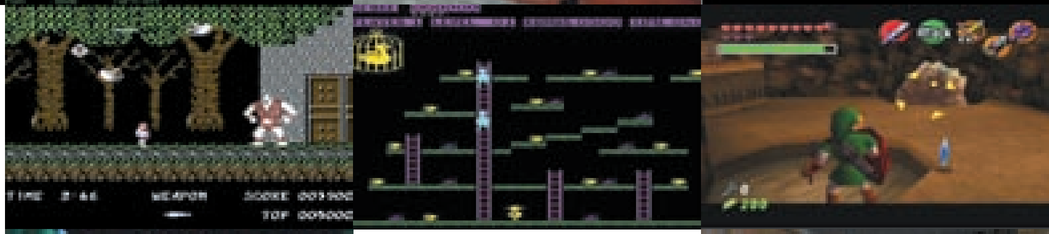




Which game will be No.1?

The final countdown in Retro Gamer issue 9

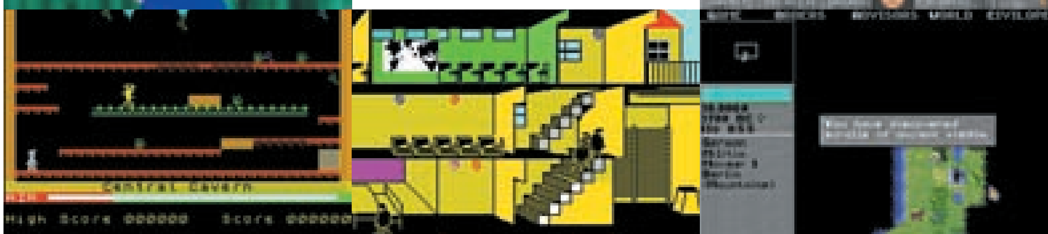
On sale October 26th 2004





RETRO GAMER





Endgame

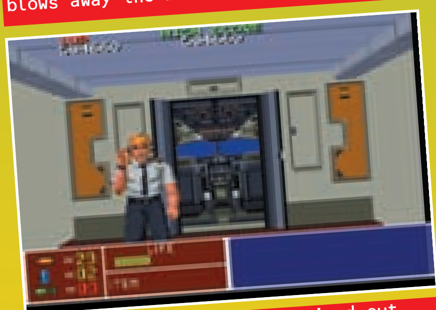
Following his successful Operation Wolf mission, US mercenary Roy Adams introduces another rabble of evil extremists to truth, justice and the American way to in Operation Thunderbolt



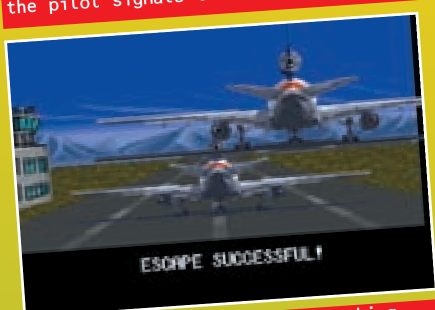
What the hell! The pilot has been taken hostage by the terrorist leader



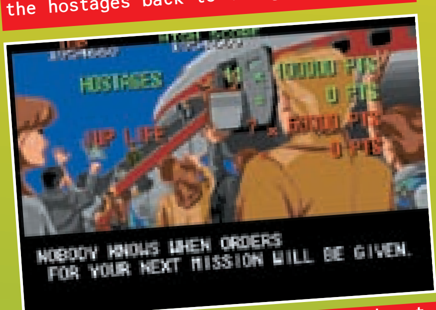
No worries though. Roy takes aim and blows away the moustachioed madman



With the terrorist leader wiped out, the pilot signals that he's A-OK



The plane leaves the runway, taking the hostages back to the good ol' USA



But no rest for Roy, because the threat of terrorism merely slumbers for now

